National Energy Board | Office national de l'énergie

Reasons for Decision

Enbridge Pipelines Inc.

Alberta Clipper Expansion Project

OH-4-2007

February 2008

Facilities and Tolls and Tariffs

Canada

2008-02903/

National Energy Board

Reasons for Decision

In the Matter of

Enbridge Pipelines Inc.

Section 52 Application dated 30 May 2007 and approval under Part IV of the *National Energy Board Act* (NEB Act) for the Alberta Clipper Expansion Project.

OH-4-2007

February 2008

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Glossary of Terms and Abbreviations

AB	Alberta
Act or NEB Act	*National Energy Board Act*
AFL	Alberta Federation of Labour
AFUDC	allowance for funds used during construction
AIV	alternative integrity validation
Alberta Clipper or Project	Alberta Clipper Expansion Project
annual capacity	the average daily rate that the pipeline system is able to sustain on an annual basis
API	American Petroleum Institute
Applicant	Enbridge Pipelines Inc. (Enbridge)
BATC	Battleford Agency Tribal Chiefs Inc.
b/d	barrel(s) per day
Board or NEB	National Energy Board
CAPP	Canadian Association of Petroleum Producers
CEA Act	*Canadian Environmental Assessment Act*
Certificate	Certificate of Public Convenience and Necessity
CEP	Communications, Energy and Paperworkers Union of Canada
CRR	capital revenue requirement
CSA	Canadian Standards Association
CSA Z662	latest applicable version of the CSA standard Z662, *Oil and Gas Pipeline Systems*, as amended from time to time
CSA Z662-07	CSA standard Z662, *Oil and Gas Pipeline Systems*, 2007
CSR	Enbridge's Corporate Social Responsibility
DESR or Draft ESR	*Draft Environmental Screening Report*
EC	Environment Canada
Enbridge	Enbridge Pipelines Inc.
EPP	Environmental Protection Plan

ERP	Emergency Response Program
ESR	*Environmental Screening Report*
FA(s)	Federal Authority(ies)
FSIN	Federation of Saskatchewan Indian Nations
Guidelines	National Energy Board *Guidelines for Negotiated Settlements of Traffic, Tolls, and Tariffs*
ha	hectare
ILI	in-line inspection
IMP	Integrity Management Program
ITS	Incentive Tolling Settlement
Keeseekoose	Keeseekoose First Nation
km	kilometre(s)
KP	kilometre post
kPa	kilopascal(s)
LVP	low vapour pressure
m	metre(s)
m^3	cubic metre(s)
m^3/d	cubic metre(s) per day
Mainline	the Canadian oil pipeline owned by Enbridge that extends from Edmonton, Alberta to the Canada-U.S. Border near Gretna, Manitoba
mm	millimetre(s)
MB	Manitoba
MBS	material balance system
MNS	Métis Nation – Saskatchewan
MPLA	Manitoba Pipeline Landowners Association
MOP	maximum operating pressure(s)
NCRR	non-capital revenue requirement
NDE	non-destructive examination
NEB	National Energy Board

NPS	nominal pipe size in inches
OD	outside diameter
OPR-99	*Onshore Pipeline Regulations, 1999*
PADD	Petroleum Administration for Defense District that defines a market area for crude oil in the United States
Peepeekisis	Peepeekisis Cree Nation
PIP	Preliminary Information Package
Poundmaker	Poundmaker Cree Nation
RA(s)	Responsible Authority(ies)
Reasons	Reasons for Decision
Red Pheasant	Red Pheasant First Nation
ROE	return on equity
Roseau River	Roseau River Anishinabe First Nation
RoW	right-of-way
RTTM	real time transient model
SAPL	Saskatchewan Association of Pipeline Landowners
SCADA	supervisory control and data acquisition
Settlement	Alberta Clipper Canada Settlement with CAPP
shipper	the party that contracts or nominates with a pipeline for transportation service
SK	Saskatchewan
SMAW	shielded metal arc welding
Standing Buffalo	Standing Buffalo Dakota First Nation
TLE	Treaty Land Entitlement
U.S.	United States of America
WCSB	Western Canada Sedimentary Basin

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* and the Regulations made thereunder; and

IN THE MATTER OF an application dated 30 May 2007 by Enbridge Pipelines Inc. for a Certificate of Public Convenience and Necessity under section 52 of the *National Energy Board Act* (NEB Act) authorizing the construction and operation of the Alberta Clipper Expansion Project; approval under Part IV of the NEB Act for the proposed tolling methodology for the Alberta Clipper Expansion Project; and other relief as Enbridge may request or the Board may deem appropriate pursuant to section 20 of the NEB Act, filed with the National Energy Board under File No. OF-Fac-Oil-E101-2007-03 01; and

AND IN THE MATTER OF National Energy Board Hearing Order OH-4-2007 dated 28 June 2007;

HEARD in Calgary, Alberta on 5, 6 and 26 November 2007 and in Regina, Saskatchewan on 19 and 20 November 2007;

BEFORE:

J.S. Bulger	Presiding Member
K.M. Bateman	Member
S.J. Crowfoot	Member

Appearances	**Company**	**Witnesses**
D.G. Davies	Enbridge Pipelines Inc.	D. Smith
T. Hughes		K. Gilmore
J.H. Strain		T. Petter
E.W. Dixon		L. Zupan
		J. Paetz
		B. Shamla
		B. Somerville
		L. LeBlanc
		R. Doering
		R. Wight
		J. Gerez
		N. Earnest
		J. Garcia
		W. Schrage
		R. Fischer
		D. Zacharias
		G. Herchak
		L. Neis
		J. Whitney

L. Chahley	Alberta Federation of Labour	
N.J. Schultz	Canadian Association of Petroleum Producers	G. Stringham
J. Todesco	Nexen Inc.	
D. Armstrong	Suncor Energy Marketing Inc.	
W. Blain	Battleford Agency Tribal Chiefs Inc.	D. Swiftwolfe S. Wuttunee W. Standinghorn
J.D. Jodouin	Federation of Saskatchewan Indian Nations	G. Kerr M. Watson
G.R. Jeerakathil	Keeseekoose First Nation	
D. Racine R. Doucette	Métis Nation – Saskatchewan	
G.R. Jeerakathil	Poundmaker Cree Nation	
C.M. Ozirny	Red Pheasant First Nation	
M. Phillips	Standing Buffalo Dakota First Nation	
S. Rymes	Saskatchewan Industry and Resources	
J.A. Fisk J.D. Saumure	National Energy Board	

Chapter 1

Introduction

1.1 Background

On 30 May 2007, Enbridge Pipelines Inc. (Enbridge or the Applicant) filed an application pursuant to section 52 of the *National Energy Board Act* (the NEB Act) for a Certificate of Public Convenience and Necessity for the Alberta Clipper Expansion Project (Alberta Clipper or the Project). The applied-for Project would consist of 1 074 kilometres (km) of new 914 millimetre (mm) (nominal pipe size (NPS) 36 inch) outside diameter (OD) oil pipeline and associated facilities between Enbridge's Hardisty, Alberta (AB) terminal and the Canada/United States (U.S.) border near Gretna, Manitoba (MB) (Figure 1-1). At the hearing on 5 November 2007, Enbridge noted that the length of the pipeline had been amended to 1 078 km.

The new pipeline would be constructed within or alongside and contiguous to existing Enbridge right-of-way (RoW) or other rights-of-way for almost its entire length. Approximately 44 km of new, non-contiguous RoW would be required. The Project would include the installation of new pump units at eight existing Enbridge pump stations between Hardisty and Gretna and the construction of a new pump station near Regina, Saskatchewan (SK), in addition to receipt tankage, booster pump units and other terminalling facilities at Hardisty.

The purpose of the Project is to increase takeaway capacity out of the Western Canada Sedimentary Basin (WCSB) and into the traditional and extended Petroleum Administration for Defense District (PADD) II and eastern Canadian markets. The Project would have an initial annual capacity of 71 500 cubic metres per day (m^3/d) (450,000 barrels per day (b/d)) but is designed to be expandable to 127 000 m^3/d (800,000 b/d). The targeted in-service date for Alberta Clipper is 1 July 2010.

Enbridge also requested that the National Energy Board (NEB or Board) grant approval under Part IV of the NEB Act for the proposed tolling methodology for Alberta Clipper.

1.2 Mandate of the National Energy Board

The NEB's purpose is to promote safety and security, environmental protection and efficient energy infrastructure in the Canadian public interest in its regulation of pipelines, international power lines and energy development, as established by Parliament. As part of its mandate, the Board may hold public hearings in order to hear all sides and points of view prior to making decisions on applications for new facilities that fall within its jurisdiction. In carrying out its quasi-judicial duties, the Board is bound by its mandate under the NEB Act. In certain instances, such as this one, the Board is a responsible authority (RA) under the *Canadian Environmental Assessment Act* (CEA Act).

With respect to Alberta Clipper, part of the applicable regulatory framework is found in Parts III and IV of the NEB Act. Part III of the NEB Act requires the Board to make a determination with respect to the '*...present and future convenience and necessity...*' in the Canadian public interest.

Part IV of the NEB Act also requires that the Board make certain determinations wit'. respect to tolls and tariffs as described in Chapter 8.

The Board used a life cycle approach in considering the Project. All issues and concerns before the Board were considered in the context of the entire Alberta Clipper life cycle (i.e., design, planning, construction, operation, decommissioning and abandonment). The Board also considered its various regulatory roles, such as application assessment and post-decision condition compliance, with respect to each stage in the Project's life cycle.

1.3 The Public Interest

Within its Strategic Plan the Board has described the public interest in the following terms:

> The public interest is inclusive of all Canadians and refers to a balance of economic, environmental and social interests that changes as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.

Under the NEB Act, the factors to be considered and the criteria to be applied in coming to a decision on public interest or the present and future public convenience and necessity may vary with the circumstances, including the application, the location, the commodity involved, the various segments of the public affected by the decision, societal values at the time, and the purpose of the applicable section of the NEB Act.

The Board's decisions are made in the public interest and are based on respect for the rights of those affected, concern for the environment and a commitment to safety and security.

1.4 Regulatory Context

On 25 October 2006, Enbridge filed a Preliminary Information Package (PIP) for the proposed Project. The purpose of the PIP is to initiate and facilitate an efficient regulatory review of the Project and enable the Board and other federal departments to determine their environmental assessment responsibilities and the scope of the assessment under the CEA Act.

The Alberta Clipper application was filed on 30 May 2007 and requested approvals to construct and operate the Canadian portion of the pipeline. Enbridge planned to commence construction in early 2008 to ensure the Project would be in service by mid 2010.

The Project requires a Certificate of Public Convenience and Necessity under section 52 of the NEB Act and thus triggers the requirement for an environmental assessment under the CEA Act. Since the Project requires less than 75 km of new RoW, a screening level of environmental assessment under the CEA Act was conducted.

The Board decided to consider the application through an oral public hearing and on 28 June 2007 issued Hearing Order OH-4-2007, which established the process to be followed for the hearing. The Board received and approved 26 applications for intervenor status by the deadline set by the Board. In addition, the Board subsequently received and approved a further

six applications for late intervenor status from Battlefords Agency Tribal Chiefs Inc., Keeseekoose First Nation, Métis Nation – Saskatchewan, Peepeekisis Cree Nation No. 81, Poundmaker Cree Nation, and Red Pheasant First Nation.

In the OH-4-2007 Hearing Order, the Board invited parties to suggest any amendments or additions to the List of Issues by 23 August 2007. Submissions on the List of Issues were received from Northern Pipeline Projects Ltd., the Standing Buffalo Dakota First Nation, the Roseau River Anishinabe First Nation, the Samson Cree Nation, the Maskwacis Cree Nation, the Manitoba Métis Federation, and the Montana First Nation. The concerns raised by parties related to construction safety and procedures, the rights of Aboriginal people, and Aboriginal traditional environmental knowledge and land use information.

The Board responded to the parties on 28 August 2007 and concluded that no amendments or additions to the List of Issues were required as the List of Issues covered all matters raised by parties to the extent that they were relevant to the determination to be made by the Board.

On 19 October 2007, the Board, taking into account the location of the Project and the interests of intervenors, announced the locations of the hearing as: Brandon, MB; Saskatoon and Regina, SK; and Calgary, AB.

On 19 October 2007, the Manitoba Pipeline Landowners Association (MPLA) and the Saskatchewan Association of Pipeline Landowners (SAPL), intervenors in the process, informed the Board that they had resolved their issues with respect to the Alberta Clipper application and withdrew from further participation in the proceeding.

Due to the withdrawal of MPLA and SAPL from the OH-4-2007 proceeding, the Brandon venue was no longer required and the hearing commenced on 5 November 2007 in Calgary.

On 12 November 2007, at the request of the Keeseekoose First Nation and the Poundmaker Cree Nation, the hearings originally scheduled for Saskatoon proceeded the following week in Regina.

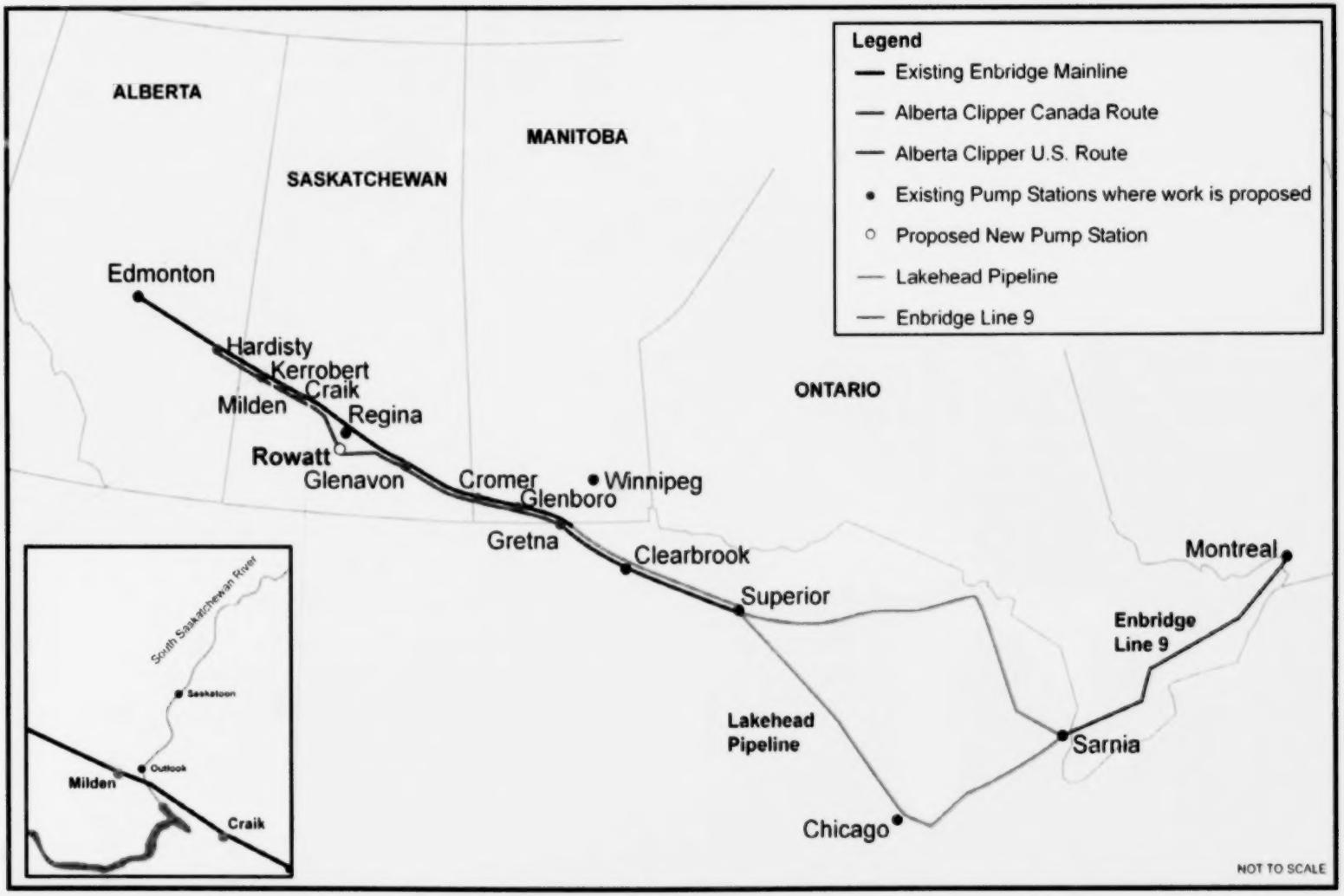
The oral public hearing was held on 5-6 and 26 November 2007 in Calgary and 19-20 November 2007 in Regina.

On 6 November 2007, the Standing Buffalo Dakota First Nation (Standing Buffalo) filed a Notice of Motion seeking a ruling that the Board has no jurisdiction to consider Alberta Clipper until it determined: a) whether Crown consultation with Standing Buffalo has been sufficient; and b) whether the Crown must be present at the hearing of the application to respond to Standing Buffalo's claim to potential rights relating to Dakota traditional lands within which the Project is located. The Board's ruling on the Motion is contained in Chapter 2 of these Reasons.

As an RA, the Board completed an environmental screening report pursuant to the CEA Act. On 9 January 2008 the Board released for public comment a *Draft Environmental Screening Report* (DESR or Draft ESR).

The final *Environmental Screening Report* (ESR), which was issued with the Board's CEA Act determination on 22 February 2008, incorporates the comments received on the Draft ESR and provides the views of the Board and the Board's determination under the CEA Act.

Figure 1-1
Alberta Clipper Project



Chapter 2

Motion by the Standing Buffalo Dakota First Nation

Standing Buffalo Dakota First Nation

On 30 July 2007, Standing Buffalo filed its application for intervenor status. As the basis for its participation in the process Standing Buffalo cited unextinguished Aboriginal Title, self-governance rights and historic allyship status.

On 6 November 2007, Standing Buffalo filed a Notice of Motion requesting the following decisions of the Board:

a) decision that the Board has no jurisdiction to consider the Alberta Clipper Expansion Project Application on its merits without first determining whether Standing Buffalo has a credible claim within the meaning of the Supreme Court's decision in *Haida Nation v. British Columbia (Minister of Forests)*[1] (*Haida*); and

b) a decision that the duty of fairness requires that the Crown be required to attend and respond to Standing Buffalo's claim, and in the absence of any such response from the Crown, Standing Buffalo's claim should be accepted as uncontradicted and the Board should then determine that it is without jurisdiction to determine the substantive merits of Enbridge's application.

In support of the motion, Standing Buffalo relied on an affidavit sworn by Chief Roger Redman and, as agreed with the Board, the evidence provided by its Elders in recent Board hearings more particularly in the Enbridge (Westspur) Alida to Cromer Capacity Expansion hearing (OH-2-2007), the TransCanada Keystone Pipeline GP Ltd hearing (OH-1-2007) and the Enbridge Southern Lights GP Inc. hearing (OH-3-2007).

On 8 November 2007 the Board established a process to deal with the Notice of Motion. Parties wishing to answer the motion were directed to file their submissions by 19 November 2007. Standing Buffalo had until 23 November 2007 to file its reply, with the Board's decision on the motion to follow in due course.

The oral portion of the OH-4-2007 Hearing traveled to Regina the week of 19 November 2007 to accommodate the participation of Standing Buffalo and other Aboriginal groups. On 19 November 2007, Counsel for Standing Buffalo attended the hearing, entered an appearance and expressed the view that a decision on the motion was required as a preliminary matter before the Board continued the hearing.

The Board considered Standing Buffalo's request and ruled that the motion need not be decided at the outset of the Regina portion of the hearing. The Board provided several reasons for this

1 [2004] S.C.J. No 70

view, including the fact that the process for hearing the motion was not yet complete, that the evidence expected to be provided in the hearing would provide further factual basis relevant to the issues raised in the motion and that proceeding with the hearing would not cause prejudice to Standing Buffalo's interests. Following the Board's ruling on the request, Standing Buffalo's counsel and representatives left the hearing room and did not participate further in the proceeding.

Submissions on the Motion

Standing Buffalo

Standing Buffalo asserts a claim of Aboriginal title over land within which the Project is proposed to be located. Standing Buffalo submitted that it has a credible potential claim and thus the test set out in *Haida* is engaged. It characterized that test as requiring an assessment of whether the proposed activity might adversely affect the rights claimed, which will in turn determine the scope of the Crown's duty to consult in respect of that claim and require an assessment of whether the Crown's consultation, if any, has met the required standard.

Referring to the *Haida* case, Standing Buffalo submitted that the NEB can only consider the substance of the Alberta Clipper application once it has: (1) established that Standing Buffalo has made a credible potential claim to the land subject to the Project; (2) determined the scope of the Crown's duty to consult; and (3) satisfied itself that the Crown's duty to consult has been fulfilled.

Standing Buffalo took the position that the duty of fairness requires the Crown to respond to its claim and, if that does not occur, the NEB ought to find that it does not have jurisdiction to consider Enbridge's application.

Standing Buffalo asserted that it's Aboriginal right to the land has existed since time immemorial and that it has not entered into a treaty. According to Standing Buffalo, this, combined with the relationship with the Crown premised on "allyship", gives rise to a credible claim to governance rights.

Standing Buffalo argued that the Crown's opinion about its claim is not legally determinative. It instead argued that the fact that the Crown engaged in negotiations over the course of many years suggests that the Crown believes the claim is in fact credible. Standing Buffalo further submitted that, even though the Crown's response to it may have been negative, as the Crown has not made an appearance to contradict Standing Buffalo's position in this proceeding, one may conclude that the Crown does not take issue with the existence of Standing Buffalo's credible potential claim.

Standing Buffalo argued that, if the Crown does not appear in the proceeding then it is necessary to consider the potential adverse effect of the Project. In its view, the fact that the Project would be built on Dakota lands is a potential adverse effect as contemplated in *Haida* because it interferes with constitutionally protected governance rights. The proposed pipeline would directly affect Standing Buffalo's right to control its traditional territory as a result of its assertion of Aboriginal title to "the land through which the pipeline runs or will run."

According to Standing Buffalo, the Board must first conclude that the Crown owes a duty to consult before assessing the adequacy of consultation. The strength of the claim and significance of the adverse effect should only be considered at the next step, determining the scope of the duty to consult and whether the Crown's consultation has met that standard. Standing Buffalo maintained that the Crown did not so much as inform Standing Buffalo of the Project.

Standing Buffalo also argued that the public hearing process cannot satisfy the Crown's duty to consult because the NEB is not an agent of the Crown and that, unlike the Crown, the NEB does not owe a fiduciary duty to Standing Buffalo. It further argued that Enbridge's consultation cannot satisfy the Crown's duty because, although its consultation may satisfy the Crown's duty under certain circumstances, Enbridge is not capable of conducting meaningful consultation in relation to governance. Standing Buffalo claimed that Enbridge's consultation was perfunctory and not sufficient in the non-treaty context.

In summary, Standing Buffalo submitted that the Board must either order Canada to be present so that all parties may address the issue of jurisdiction with Canada present, or it must determine it has no jurisdiction to consider the merits of the substantive application before it.

Enbridge

Enbridge submitted that the motion should be dismissed as there is no basis for the Board to make the decisions Standing Buffalo requested. It argued that even if Standing Buffalo's claims were deemed credible, this does not affect the Board's jurisdiction to decide the application. Enbridge further argued that the duty of Crown consultation does not arise only from the demonstration of a credible Aboriginal claim; there must also be demonstration that the proposed activity might adversely affect the claimed Aboriginal rights. Enbridge expressed the view that the Board's decision regarding the effects of the Project could only be made after all of the evidence was received and the hearing process completed.

Enbridge filed a sworn affidavit of Glenn Herchak, its Director of Government Affairs, to which was attached a copy of a letter sent by Indian and Northern Affairs Canada to Chief Ken Whitecloud dated 25 July 2007. The without prejudice letter from Mr. Michel Roy, the Assistant Deputy Minister, Claims and Indian Government, informs Chief Whitecloud that the Dakota First Nations "...do not have Aboriginal rights in Canada."

Canadian Association of Petroleum Producers

The Canadian Association of Petroleum Producers (CAPP) opposed the motion and argued that Standing Buffalo's assertion, namely that the Board has no jurisdiction to consider the application before it, was unreasonable and was not supported by law. CAPP's view was that the fundamental issue of concern to Standing Buffalo is beyond the jurisdiction of the NEB.

CAPP further argued that regulatory consideration of a development proposal does not require, as a precondition to the exercise of jurisdiction, the settlement of any claim. CAPP claimed that the fundamental issue for Standing Buffalo is to have the Crown respond favourably to its asserted rights and that its intervention in the NEB process is collateral to this fundamental issue. CAPP submitted that the Board cannot resolve that fundamental issue. Moreover, CAPP argued that the NEB does not have jurisdiction to refuse to process applications that meet regulatory

requirements because of unresolved claims against the Crown and that the case law does not require the Board to halt its process.

In response to Standing Buffalo's assertion that the NEB must accept the evidence of its claim if uncontradicted, CAPP argued that there is no such rule of law applicable to NEB proceedings. Further, CAPP submitted that despite the moving party's assertion that the Crown has been silent, evidence showed that that has not been the case. CAPP pointed to the evidence on the record showing that over the years, Standing Buffalo has had some 70 meetings with the Crown and to the evidence that Standing Buffalo had received an unfavourable letter from the Government of Canada regarding its claim.

CAPP submitted that unresolved claims do not present an absolute bar to ongoing activities or further development. According to CAPP, consultation is a process that leads to a balancing of interests and decisions can be made though there may be disagreement about the adequacy of the Crown's response. Finally, CAPP argued that unreasonable attempts to thwart decision-making are not permissible.

Reply Submissions of Standing Buffalo

In reply, Standing Buffalo clarified that it is not its position that any credible potential claim would automatically halt any development whatsoever. Rather, a credible potential claim must be analyzed in accordance with the test in *Haida* based on a preliminary assessment of the strength of the credible potential claim and of the negative effect on the credible potential claim of the development being promoted. Standing Buffalo argued that the Board must conduct this analysis first in order to determine whether or not it has jurisdiction to proceed with the substantive merits of the application because, in some cases, the Crown's duty to consult and accommodate extends to the point of requiring the consent of the Aboriginal people affected. A review of the claim is required in order to determine that it is a credible potential claim and then to determine if consent is required.

Standing Buffalo submitted that CAPP's characterization of its argument was incorrect. Its position was not that unresolved claims should stop proposed developments. Rather, Standing Buffalo clarified that Canada must *consult* with it, in contrast to *resolve its claim*, before the Project could proceed.

Standing Buffalo reiterated its position that the Board cannot properly assess either the strength of the claim or the negative effects of the Project on the claim without Canada being present to respond to the claim. The First Nation suggested that the Board should not, without the Crown being present, rely on the letter filed in Enbridge's materials for proof of the statement that Standing Buffalo does not have a credible claim. To do so would deprive Standing Buffalo of a fair hearing.

In conclusion, Standing Buffalo stated that a tribunal cannot make a decision on the substance of a matter before the tribunal first establishes that it has jurisdiction to do so. It indicated that the only way that the Board can establish its jurisdiction is by engaging the *Haida* test and concluding that there was no duty to consult or that there was a duty which was satisfied. Standing Buffalo's view was that there is a duty to consult and it has not been satisfied.

Standing Buffalo asserted that either the Board must request Canada to be present or it must determine that it does not have jurisdiction to consider the merits of the Alberta Clipper application.

Views of the Board

The Board has reviewed all of the submissions with regard to the Notice of Motion filed by Standing Buffalo in the Alberta Clipper proceeding. The Board notes that an identical motion was filed by Standing Buffalo in the Enbridge Southern Light proceeding (OH-3-2007) and has had the opportunity to read the Board's Decision in the said matter. The legal questions raised in both proceedings are identical and the factual elements are almost the same: both proposed projects would be located in the same geographical area and would traverse land over which Standing Buffalo asserts a claim of Aboriginal title. The submissions of the parties are also almost identical in both proceedings. The Board in the Alberta Clipper hearing has considered the evidence and arguments before it and arrived at the same conclusions for similar grounds as the Board in the OH-3-2007 hearing.

The foundation for Standing Buffalo's motion is that the Project falls within the territory over which it asserts Aboriginal rights and title. Standing Buffalo claims Aboriginal rights and title over a vast territory that spans three prairie provinces and a substantial portion of the northern United States. Though there have been negotiations between Standing Buffalo and the Government of Canada for several years, the evidence indicates that negotiations have broken off, and that according to the Standing Buffalo, the issues have not been resolved.

Standing Buffalo's position is that since it has a credible potential claim, prior to considering the substantive merits of the application, the Board must address the jurisdictional question of whether the Crown's duty to consult with Standing Buffalo has been fulfilled in accordance with the test in *Haida*. Standing Buffalo maintained that this analysis requires a determination of the scope of the duty to consult, which involves an evaluation of the strength of Standing Buffalo's claim and the adverse impacts or effects on that claim. Standing Buffalo further maintained that, for the Board to fully consider and answer the questions raised by Standing Buffalo, the Crown must be present to respond.

The Board disagrees with Standing Buffalo's position that, before it considers the substantive merits of the certificate application, it must determine the strength of Standing Buffalo's claim and assess the adequacy of Crown consultation. The Board's process is designed to ensure that it has a full understanding of the concerns that Aboriginal people have in relation to a project, before it renders its decision. Aboriginal people who have an interest in a project are able to participate

in the regulatory process on several levels. The Board weighs and analyzes the nature of the Aboriginal concerns and the impacts a proposed project might have on those interests as part of its overall assessment of whether or not the Project is in the public interest. The Board is of the view that the process it followed in the evaluation of the Project ensures that the decisions of the Board in respect of the Project will be made in accordance with all legal imperatives. The Board further notes that Alberta Clipper requires various permits and authorizations from other federal or provincial government departments. For the reasons discussed below, the Board is not in a position to assess whether the legal obligations of those departments and agencies, including the adequacy of their consultations, have been fulfilled in relation to those permits and authorizations.

In its motion, Standing Buffalo questions the Board's authority to deal with the application absent the Crown's response to Standing Buffalo's claim. The Board is of the view that to better understand its views on the issues raised by Standing Buffalo in Alberta Clipper, it is relevant to examine the Board's jurisdiction and process.

Board Jurisdiction and Process

The NEB was established by Parliament through the National Energy Board Act to carry out a number of functions pertaining to energy and energy infrastructure in Canada. Among those functions is the assessment of applications for pipelines and related facilities for the purpose of granting or denying orders, or issuing certificates subject to Governor in Council approval. The Board does not have the jurisdiction to settle Aboriginal land claims.

The Board weighs the overall public good a project may create against its potential negative aspects, including any negative impacts on Aboriginal interests, and makes its decisions in accordance with the public interest. As part of the decision-making process, it takes into consideration the potential environmental and social impacts and the potential for mitigation of those impacts. Mitigation measures proposed by an applicant or interested parties may be as varied as, for example, requiring the implementation of a heritage resources contingency plan, re-routing a pipeline or adjusting the proposed construction schedule. The Board's mandate allows it to respond to potential impacts of a project on Aboriginal interests in a variety of ways, including accepting the impact in light of the benefits associated with the project, imposing conditions on the approval of the application to minimize the impact or denying the application.

The NEB is an impartial, quasi-judicial tribunal, and as such, is bound by the principles of natural justice: it must receive information about

Aboriginal concerns with respect to a specific project through its public hearing process. It is the practice of the Board to take Aboriginal interests and concerns into consideration before it makes any decision that could have an impact on those interests. In order to ensure that the Board has the best possible evidence before it in this respect, the Board's *Filing Manual* sets out the requisite elements of an application, requires applicants to consult with potentially impacted Aboriginal groups early on in their project planning, and requires that applications include detailed information on any issues or concerns raised by Aboriginal groups or otherwise identified by the Applicant. In addition to the initial filings required by the *Filing Manual*, the Board frequently requests, as was the case in the Alberta Clipper proceeding, additional information from applicants about potential impacts of a project on Aboriginal people and mitigation options. Typically, the stronger the Aboriginal interests and more significant the potential impact, the more evidence the Board will require before rendering its decision. Such evidence could include the details on the nature of the Aboriginal rights and interests, the efforts made by an applicant to resolve issues and the possibility of mitigation of the impacts.

In accordance with the Board's *Filing Manual*, the Applicant in this proceeding: filed the Company's Aboriginal consultation protocol; provided a description of potentially affected Aboriginal groups to be consulted; identified the potential information needs of those groups; outlined the methods of and timing of its consultation; and discussed the procedure for responding to issues and concerns, plans for future consultation and follow-up throughout operations. The Applicant also described any known heritage resources and discussed the potential for any undiscovered heritage resources in the study area. The Applicant included a Heritage Resources Discovery Contingency Plan in the application, which described what contingency plans and field measures would be undertaken should a heritage resource (including archaeological, palaeontological or traditional use sites) be discovered during construction. Specific information regarding impacts on vegetation, fish and fish habitat, and wildlife and wildlife habitat, which the Board recognizes can directly or indirectly impact Aboriginal interests was also provided by the Applicant[2]. In addition to the information initially filed by the Applicant, the Board asked for additional information from the Applicant as well as various Aboriginal groups who expressed interest in the matter.

Aboriginal people and groups with an interest in the Project were invited to participate in the hearing process to make the Board aware of their views and concerns. The Board has made significant efforts in the past

2 The Applicant's pre-application consultations with various Aboriginal groups and organizations as well as the Board's assessment of potential impacts on Aboriginal interests are described in Chapters 5 and 6 of these Reasons.

several years to provide information to Aboriginal people so that they can understand how to become involved in the regulatory process. In addition to the information provided to the Board via the Applicant, there are numerous ways for Aboriginal people to make their views known directly to the Board. This can include a letter of comment, oral statements, written evidence, oral testimony by elders, cross examination of the Applicant and other parties, and final argument.

The Board is obligated to carry out its functions in accordance with the rules of natural justice and procedural fairness. To the extent possible and within the parameters of procedural fairness, the Board has adopted a fair and flexible process that allows Aboriginals to provide their views and evidence to the Board. In this particular instance, the Board offered Standing Buffalo the opportunity to adopt, as part of its evidence on the Project, the evidence provided by its Elders in other proceedings before the Board. Standing Buffalo accepted the offer.

The Board is of the view that in respect of this application, Standing Buffalo was fully informed about the Project through discussions with the Applicant and the Applicant's filings. Standing Buffalo had the opportunity to fully participate in the Hearing that took place in Regina to facilitate and accommodate its participation but chose not to present witnesses at the hearing to speak to its pre-filed evidence.

The Board's process, which was followed in the Alberta Clipper proceeding, is designed to provide it with the best information available about Aboriginal concerns so that it may take these concerns into consideration before it renders a decision. To reiterate, the Board requires applicants to take all reasonable steps to identify and contact Aboriginal people in the area of the proposed project prior to the filing of their applications. This ensures that potentially affected Aboriginal people have essential information about the project and can discuss their concerns and issues with the applicant in the early planning stages of the project. Through these early discussions, an applicant can often fully or partially address the concerns of the Aboriginal people or modify the project in response to such concerns. The applicant is required to file with its application evidence related to its discussions with potentially affected Aboriginal people as well as details of the issues or concerns raised, discussed and, where applicable, resolved. The Board will typically require further information and updates from the applicant. Aboriginals with unresolved concerns are encouraged to make their views known to the Board through some form of participation in the hearing. The Board takes all of the evidence about Aboriginal rights and interests into consideration as part of its assessment of the project impacts and determination of whether the project is in the public interest.

Project-Related Authorizations and Permits from other Authorities

The NEB has a primary role in energy pipeline regulation and it is the principal body through which parties opposed to or in favour of a project make their views known. There is no other government department or agency that has the ability to impose conditions on a certificate of public convenience and necessity. Other government authorities may have their own regulatory responsibilities pertaining to specific aspects of a federal pipeline. These can include federal departments such as Fisheries and Oceans or Transport Canada, as well as provincial government agencies. The processes for these approvals and permits may be carried out parallel to, or independently of the NEB process and are often not directly relevant to the NEB decision-making process. The Board cannot be directed by other government authorities, nor does the Board have authority to direct the activities of other government authorities. Further, their decision-making responsibilities generally need not be fulfilled before the NEB makes its decision in any particular case. Those government authorities may have their own specific requirements for the issuance of their authorizations and may carry out Aboriginal consultation in respect of their decisions, where appropriate. It is the responsibility of those government authorities to ensure that they have met their legal obligations and it is a matter for the courts, not the Board, if someone wishes to challenge their process.

Conclusion

In light of the above, the Board disagrees with Standing Buffalo's allegation and is of the view that it has jurisdiction to make a final determination on the Alberta Clipper application and does not require the attendance of the Crown to discuss Standing Buffalo's claim. Not only was the Applicant required to provide information to the Board regarding potential impacts of the proposed Project on Aboriginal interests, Standing Buffalo had the opportunity to participate fully in the Board's process and to bring to the Board's attention all of its concerns with respect to the proposed Project. The Board is satisfied that it has the evidence that it needs to determine the Project's impacts on various interests, including those of Standing Buffalo, and to determine whether the Project is in the public interest.

Accordingly, the motion is denied.

Chapter 3

Facilities

Chapter 3 addresses the design of the Project, as well as the measures to ensure ongoing pipeline integrity and public safety, from the construction to the operation of the facilities.

In discharging its regulatory oversight responsibilities, the Board uses a risk-based compliance verification approach to ensure that companies identify and manage integrity-related hazards which may impact safety and the environment throughout the life cycle of the project. This life cycle approach follows the project from design to construction, operation and until the pipeline is abandoned.

The adequacy, implementation and effectiveness of a company's commitments are typically verified by the Board through audits, inspections and meetings. In addition, the Board may also perform ongoing monitoring and follow-up of a company's compliance and incidents. This compliance approach is an integral part of the Board's continuous oversight of a company's pipeline and facilities. Accordingly, should the Project be approved, the Board would employ its normal compliance verification approach as a means of verifying that the company is meeting the commitments outlined throughout the OH-4-2007 proceedings.

3.1 Project Design

The Canadian portion of the Project consists of a new 1 078 km export pipeline from Hardisty to the border between Canada and the U.S. near Gretna. Crude oil flow through the 914 mm (NPS 36) pipeline would be driven by nine new pumping facilities. To accommodate incoming flows, the application also sought approval for the construction and operation of six new oil storage tanks and terminalling facilities at Enbridge's Hardisty Terminal. Each component of the Project has its own discrete engineering-related activities, which vary from new pipeline construction to construction of pumping facilities at existing and new pump station locations, and terminalling facilities to accommodate the throughput associated with the new pipeline and changes in operation.

3.1.1 Applicable Standards, Regulations and Company Procedures

Compliance with OPR-99 and CSA Z662-07

Enbridge indicated that the Project would be designed, constructed and operated in accordance with applicable regulations, and industry codes and standards including the *Onshore Pipeline Regulations, 1999* (OPR-99), which incorporates by reference the latest Canadian Standards Association (CSA) standard Z662, *Oil and Gas Pipeline Systems* (CSA Z662). These regulations and standards in turn reference other standards that would be followed in the design. Enbridge also indicated that the detailed design of the Project would be completed in compliance with the CSA Z662 standard.

Enbridge's Quality Management System

Enbridge committed to implement a quality management plan consisting of a design quality management system, a materials quality management system and a construction plan. The quality management plan would be implemented to ensure that all applicable environmental, regulatory and statutory requirements would be met. The quality management plan would be used to monitor and document evidence of compliance. The effectiveness of the system would be assessed through internal quality audits. The requirements and expectations for quality management and assurance would be applied to contractors, subcontractors and suppliers as appropriate.

Views of the Board

The Board notes that Enbridge committed to design Alberta Clipper in accordance with OPR-99 and CSA Z662-07. In addition, the Board notes Enbridge's commitment to implement a quality management program for the design and construction of the Project.

If the Project were to be approved, the Board would use its risk-based compliance verification approach throughout the construction and operation phase of the Project to review Enbridge's quality management plan, including any findings and the corrective actions identified in Enbridge's internal quality audits.

The Board is satisfied that through Enbridge's commitments, the Project would be designed according to the most recent regulations and industry standards.

3.1.2 Proposed Facilities and Operation

Tanks and Associated Terminalling Facilities

In order to match the forecasted throughputs for Alberta Clipper, construction of six new oil storage tanks would be phased over four years at Enbridge's existing Hardisty Terminal. Enbridge specified that the aboveground oil storage tanks would each have a working capacity of 31 800 m^3 (200,000 barrels) and a height of 18.3 metres (m). Associated new terminalling facilities would include connection lines and three booster pumps feeding from new tanks to the initiating pump station. Enbridge would also expand the existing manifolds, metering equipment, fire protection systems and access roads, while adding new buildings for electrical services and for quality assurance of crude oil fluid properties.

For the six steel tanks, internal and external corrosion would be prevented through an epoxy coating or paint and a cathodic protection system; additional steel thickness would provide corrosion allowance. These single-walled tanks would be placed in bermed areas for secondary containment, while external floating roofs would be designed to contain tank vapours. Enbridge committed to regularly monitor and inspect the cathodic protection system and the leak detection

system. In addition, the Applicant committed to follow several Enbridge Engineering Standards and Guidelines related to oil tanks on file with the Board.

Views of the Board

The Board concurs that, in light of the forecasted throughputs, the proposed tank expansion and the associated terminalling facilities would be required. Recognizing that the construction of the six tanks would be phased over several years, should the Project be approved, the Board would direct Enbridge to comply with the latest applicable regulatory requirements at the time of final design, construction and operation. On the subject of liquid storage in oil pipeline terminals, CSA Z662-07 incorporates by reference standards such as American Petroleum Institute (API) 650, *Welded Steel Tanks for Oil Storage* and API 653, *Tank Inspection, Repair, Alteration and Reconstruction.*

Line Pipe

The Alberta Clipper pipeline would have a diameter of 914 mm (NPS 36) with a mainline wall thickness varying from 9.12 mm to 17.15 mm, taking into account the need for short lengths of thicker pipe at road, major watercourse and uncased railway crossings. Enbridge indicated that the pipeline would be installed at a minimum depth of 0.6 m in rock and 0.9 m in soil.

In response to an information request from the Board, Enbridge confirmed that line pipe would be made of high strength steel of grade 483 (X70) and that grade 550 (X80) would not be used. Primary external corrosion protection would be achieved through a fusion-bond epoxy coating, while a cathodic protection system would provide secondary external corrosion protection. Internal coating was deemed unnecessary due to the properties of crude oil to be transported. Enbridge would also rely upon its Integrity Management Program (IMP) to ensure the ongoing integrity and safety of the pipeline, as described within section 3.2.1 of these Reasons.

New scraper trap facilities would be placed at five stations along the pipeline in order to launch or receive standard pipe scrapers and in-line inspection (ILI) tools. The requirement for check and block valves would be assessed through Enbridge's operational risk management process, and would be based on environmental and operational considerations. Although 45 preliminary block valve sites were proposed, Enbridge advised that all valve locations would be finalized during the detailed design process.

Pumping Facilities

Eight new pumping facilities would be required at the following existing Enbridge stations:

- Hardisty, AB;
- Kerrobert, Milden, Craik and Glenavon, SK; and
- Cromer, Glenboro and Gretna, MB.

The ninth pumping facility would involve the construction of a new pump station to be built near Rowatt, SK. The new Rowatt Station would be located along Enbridge's proposed route deviation south of Regina, SK.

The new centrifugal pumps would be electrically driven and equipped with devices for primary and secondary station pressure control. Each pump station would also be provided with new electrical services buildings, as well as instrumentation and controls equipment and piping.

Products to be Transported and Operating Pressures

Although Enbridge optimized its design based upon heavy crude oil properties, the pipeline would operate in low vapour pressure (LVP) service to transport various batches of crude oil. Initial annual pipeline capacity would total 71 500 m^3/d (450,000 b/d). Subject to regulatory approvals and shipper support, this capacity could be expandable to 127 000 m^3/d (800,000 b/d) by adding facilities at Enbridge pump stations. The pipeline would operate at pressures below the applied-for maximum operating pressures (MOP), which vary from 7 710 kilopascals (kPa) to 9 060 kPa, depending upon each pipeline segment's location and design specifications.

Views of the Board

The Board notes that the Project design would comply with the most recent requirements of OPR-99 and CSA Z662-07. Therefore the Board is satisfied that the Pipeline and associated facilities would be constructed using proven modern or advanced design, manufacturing and coating practices which would prevent, minimize or delay the occurrence of integrity-related defects.

3.1.3 Hydrostatic Pressure Testing versus Alternative Integrity Validation

Proposed Hydrotest

In its application, Enbridge stated that it was planning on hydrostatically testing the Alberta Clipper pipeline in accordance with OPR-99 and CSA Z662 requirements, but that an alternative integrity validation (AIV) process as an alternative to hydrostatic testing might also be considered.

Alternative Integrity Validation

Enbridge indicated that it intended to request approval to implement an AIV process. Enbridge also indicated that it would file an AIV plan with the NEB 60 days prior to the commencement of steel making and pipe rolling.

The Board sought further clarification on Enbridge's intent to submit an AIV proposal and the relevant information and documentation supporting any AIV proposal.

Enbridge filed its AIV plan on 19 October 2007 and upon review the Board issued a decision letter (Appendix II) indicating that the requirements and expectations it had previously expressed

had not been fulfilled in their entirety. The Board noted that the areas of deficiency included a lack of sufficient details regarding the AIV plan, no consultation with landowners, the use of 80 percent of specified minimum yield stress design, and the lack of a schedule for all phases of the AIV process. Therefore, the Board stated it was unable to pursue its assessment of the proposed AIV method and would not further consider the AIV option in the context of the OH-4-2007 proceeding.

Views of the Board

OPR-99 and CSA Z662-07 require that all pipelines undergo a pressure test before being placed into operation. The pressure test serves two purposes. First, the strength component of a pressure test demonstrates pipeline integrity and that the pipeline is able to withstand the anticipated MOP with a minimum safety margin of 1.25. Second, the leak test ensures that the pipeline is not leaking before it is placed in service. Predominantly for safety reasons, pressure tests are typically conducted using a liquid medium such as water (hydrostatic test).

The proposed hydrostatic test of Alberta Clipper is an essential means of validating the company's design and construction practices as well as the pipeline's integrity prior to placing it into crude oil service. If the Project were to be approved, the Board would direct Enbridge to hydrostatically test the pipeline in accordance with the OPR-99 and CSA Z662 requirements.

Any alternative to a hydrostatic test must unequivocally demonstrate that its effectiveness and reliability are at least equivalent to the pressure testing currently required by CSA Z662-07. In its AIV decision letter, the Board indicated to Enbridge that the potential AIV proposal might require the use of technologies or processes which are new, unproven and not recognized by OPR-99 or CSA Z662. The Board clearly outlined its expectations for an AIV plan to be provided. Since AIV requires methodical and rigorous oversight which initiates at the steel making stage, the Board requested Enbridge to clearly indicate whether or not it would be using an AIV.

In its letter, the Board reiterated its support for the development and implementation of new technologies, materials and processes such as AIV trials. However, when new technologies, materials or processes are not addressed in the CSA Z662 standard, the onus is on the proponent to proactively and comprehensively demonstrate that pipeline integrity, safety, environment and security would not be compromised by the use of the new technologies, materials or processes. As mentioned in the letter the Board was not satisfied with the information provided; the proposal did not meet its expectations. Should Enbridge envision submitting a future AIV proposal for other projects, including Alberta Clipper, then the Board would expect Enbridge to file a complete application in a timely manner to ensure that all interested parties could thoroughly review the proposal.

3.2 Pipeline and Associated Facilities Integrity

3.2.1 Integrity Management Program (IMP)

The primary goal of the IMP is to prevent leaks and ruptures caused by in-service degradation of the pipeline. Enbridge indicated that the principal objectives of its pipeline IMP are to:

- ensure the safety of employees and the public;
- protect the environment;
- strive to achieve zero failures; and
- maintain the system as a long-life asset.

Enbridge committed to use its IMP to identify, assess and evaluate operational risks applicable to Enbridge's pipelines and facilities and indicated that the Project would be fully integrated into its existing IMP.

Enbridge stated that the IMP activities are formalized in various integrity related processes and procedures which are based on the type of hazard considered. Enbridge noted that its IMP uses documented policies, procedures and practices to ensure activities are documented, roles and responsibilities are defined, consistency is maintained and decisions are easily communicated and there is continuous improvement. The results of the integrity assessment are used to prioritize maintenance activities on projects to ensure that fitness-for-purpose tolerances are maintained.

Enbridge also indicated that it has a distinct facilities integrity based program to provide continuous safe, reliable and environmentally responsible operation at its facilities.

Views of the Board

The Board requires companies to develop and implement an integrity management program to proactively identify and mitigate any potential hazards to the pipeline and facilities. The IMP is a continuous improvement process to be used throughout the life cycle of pipeline facilities. If the Project is approved and becomes operational, Enbridge would be responsible to ensure the operational reliability of all system components.

Based on the evidence provided, the Board is satisfied that Enbridge's IMP contains the key framework components to proactively identify and mitigate potential hazards to the proposed pipeline and facilities. Should the Project be approved, the Board would apply its risk-based compliance verification approach to ensure that Enbridge complies with its IMP commitments.

3.2.2 Pipe Thickness and Depth of Cover

MPLA and SAPL expressed safety and integrity concerns regarding Enbridge's proposed depth of cover of 0.9 m in soil, the class location factor of 1 and the minimum wall thickness for the pipeline[3]. MPLA and SAPL noted that over time, the pipe wall may corrode, while the soil coverage may diminish, for example due to soil settlement or erosion. Consequently, MPLA and SAPL proposed that the pipeline be installed at a depth of 1.5 m instead of 0.9 m and that Enbridge's design comply with Class 3 location requirements for wall thickness.

Enbridge submitted that safe pipe surface load depends on several factors which include, but are not limited to, depth of cover and pipe wall thickness. Enbridge indicated that, for pipelines in LVP service such as Alberta Clipper, CSA Z662-07 design requirements for depth of cover and wall thickness are not dependent upon class location factors. Accordingly, CSA Z662-07 specifies a minimum depth of cover of 0.6 m for LVP pipelines in both urban and rural areas.

Enbridge's submissions included a screening tool for agricultural vehicles and equipment crossing the RoW in its *Keeping in Touch* booklet for landowners. The document was filed with the Board to support Enbridge's position that farm vehicles and equipment routinely used would not be restricted from safely traversing the pipeline, even if pipe cover were reduced over time to 0.6 m instead of the initial 0.9 m.

With respect to monitoring and mitigation practices, Enbridge explained that in addition to meeting CSA Z662-07 requirements, its pipelines are incorporated into an ongoing Pipeline Integrity Dig Program which includes depth of cover surveys and investigative digs. Enbridge referred to its existing IMP and specific corrosion management practices such as the use of high-performance coatings, a cathodic protection system, periodic ILI and repairs.

Enbridge specified that its third-party damage prevention and mitigation measures for pipe shallower than 0.6 m include:

- additional signage and management where public safety is not compromised and where warranted by land use, generally for a short term period;
- mechanical protection in shallow areas such as ditches;
- adding cover in areas which are not subject to erosion; and
- lowering the pipeline in agricultural areas which are subject to erosion.

Enbridge also confirmed that immediate action is taken whenever safety issues are identified.

On 19 October 2007, MPLA and SAPL advised the Board that they had reached a settlement with Enbridge, resolving their concerns with respect to the application. The settlement agreement listed several commitments made between parties to address matters such as depth of cover surveying, coverage over pipe and agricultural equipment and cultivation activities.

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3 Class location factors characterize a geographical assessment area and vary from 1 to 4, as the human occupancy and the number of dwelling units or buildings increase. Class locations are factored into the requirements of CSA Z662-07 and may therefore impact a pipeline design's level of conservativeness.

Views of the Board

The Board notes Enbridge's commitment to ensure ongoing pipeline integrity and public safety through its IMP and Pipeline Integrity Dig Program. Should the Project be approved, Enbridge would be required, at a minimum, to meet its commitments regarding third-party damage prevention measures as well as regular depth of cover monitoring and mitigation practices. To verify that Enbridge's commitments are being met the Board would use its risk-based compliance verification approach, including field inspections or audits. Therefore the Board finds that the proposed depth of cover and pipe wall thickness would be acceptable for the intended service and location of the Pipeline.

Landowner issues are discussed in further detail under Chapters 4 and 7.

3.3 Construction and Operations

3.3.1 Proposed Construction Schedule

In its application, Enbridge proposed that the construction of the Project would commence in the second quarter of 2008, for an in-service date no later than 1 July 2010. Construction of the tanks at the Hardisty Terminal would be undertaken in a phased manner, with completion dates ranging from the fourth quarter of 2009 to fourth quarter of 2012.

3.3.2 Construction Safety

Enbridge committed to develop a comprehensive health and safety plan for the construction of the Project. This plan would address safety requirements, responsibilities and lines of communication during construction and commissioning of the Project. All field crews engaged on the Project would be trained and provided with a field handbook describing the main features of this plan. Random internal audits would also be carried out to ensure compliance with the health and safety plan.

Views of the Board

The Board notes Enbridge's commitment to the health and safety of its workers. Should the Project be approved, the Board would direct Enbridge to file the comprehensive health and safety plan 60 days prior to construction. Enbridge would also be required to provide a detailed construction schedule at least 60 days prior to the commencement of construction and to report construction progress on a monthly basis. This would assist the Board to prioritize upcoming risk-based compliance verification oversight activities.

Therefore, the Board is satisfied that through Enbridge's commitments, the Project would be constructed with due regard to health and safety.

3.3.3 Joining Program

Enbridge stated that field welding would be done using either shielded metal arc welding (SMAW) or mechanical gas metal arc welding processes. It also indicated that tie-in welding would be performed using a combination of manual SMAW and semi-automatic flux core welding. In addition, Enbridge stated that all field girth welds would be non-destructively inspected using ultrasonic or radiographic non-destructive examination (NDE) methods.

Enbridge also indicated that it would develop a joining program consistent with OPR-99 requirements. However, Enbridge did not provide information indicating which mechanized welding and ultrasonic NDE methods and techniques it would utilize on the Project.

Views of the Board

The Board is aware of new mechanized welding and ultrasonic NDE techniques that are currently being developed and are in various stages of field trials, evaluation, testing or use to prove their suitability for their intended purpose. Should the Project be approved, the Board would request that Enbridge submit its joining program for review 60 days prior to the commencement of any welding activities to which the programs relate. The Board requires sufficient time to review any submitted joining program to evaluate how Enbridge tested, qualified and verified the adequacy and capability of any techniques the Board views as either new or unproven. The 60 day time frame is intended to allow for the resolution of potential issues in a timely manner.

3.3.4 Pipeline Systems Control

Enbridge monitors and controls its pipelines and facilities through a supervisory control and data acquisition (SCADA) system. Enbridge indicated that its SCADA allows operators based at the Edmonton control centre to remotely monitor and control all elements of pipeline systems, including the pipelines, tanks, pump stations, valves and custody transfer metering. The system also monitors line pressures, flow rates, gas and fire detectors as well as other safety systems.

Leak Detection

Enbridge stated that its leak detection is based on a real time transient model (RTTM) material balance system computer program which is referred to as the MBS. Enbridge highlighted that the MBS is designed to meet the current OPR-99 requirements and the requirements of CSA Z662 Annex E - *Recommended practice for liquid hydrocarbon pipeline system leak detection*. Enbridge indicated that the MBS alarm thresholds would be optimized during the tuning period for the pipeline, and that the alarm thresholds would be set as low as possible without creating nuisance alarms.

In response to an information request by MPLA and SAPL, Enbridge provided settings and performance criteria for various aspects of its leak detection system. During the oral hearing the Board sought clarification regarding the type of product used to derive the estimate of the

quantity of fluid that could be leaked and whether this represented the worst-case scenario in terms of volume that might be lost in the event of a leak. On 13 November 2007 Enbridge clarified that the MBS leak thresholds assumed heavy oil, but that the thresholds were not dependent upon the particular type of crude oil in the lines. Enbridge also clarified that the thresholds did not represent the worst case in the event of a leak and that the thresholds reflect the most likely scenario.

Transient Analysis

The purpose of a transient analysis is to identify any operating conditions that could lead to a pipeline sustaining pressures beyond the limits outlined in CSA Z662. Enbridge's application did not identify a commitment to perform a dynamic (transient) analysis before the pipeline would be placed in service. However during the oral hearing, Enbridge indicated that it would complete a pressure transient analysis during the detailed design phase of the project. In addition, it noted that the transient analysis would be completed by the end of March 2008, which would be far in advance of 60 days prior to any leave to open application. In order to reflect actual operating conditions, Enbridge also committed to performing a second transient analysis within one year after the pipeline was in service. The transient analysis would be fine-tuned to support its material balance leak detection model that would be developed once the pipeline system was in operation.

Views of the Board

Although final detailed designs were not yet complete, Enbridge committed to design its leak detection system to meet the latest version of the CSA Z662 standard.

With respect to leak detection, the Board would expect Enbridge to use actual threshold values for the products transported in the pipeline, even if they may be the worst case values. Use of "the most likely" threshold values may lead to inaccurate conclusions that may misstate safety and environmental risks. Should the Project be approved, the Board would review and monitor Enbridge's leak detection model implementation and effectiveness through the Board's risk-based compliance verification approach.

Regarding the transient analysis, the Board expects all companies to conduct pressure transient analysis modeling, where applicable, before final detailed design to identify any potential operating or uncontrolled circumstances that may lead to unacceptable conditions and loading. This could include examining the potential for dynamic shock forces, excessive vibration or a pressure surge and corresponding over pressuring of the pipeline beyond allowable limits. The pressure transient analysis should examine the pipeline hydraulics (using variables such as pressure, pressure drops, and volume) and the effects of planned, unplanned or uncontrolled dynamic operational events, such as a quick closure of a valve (which may cause a quick rise in pressure in incompressible fluids), to determine if the

combination could lead to operation of the pipeline above the limits specified in OPR-99 and CSA Z662.

Should the Project be approved, the Board would direct Enbridge to make any appropriate design modifications identified in a transient analysis to reduce the probability of unacceptable conditions, such as a pressure surge. In addition, the Board would expect Enbridge to have appropriate instrumentation to monitor the Pipeline, at an appropriate frequency, to identify instances of unacceptable conditions and to verify that its design is appropriate and not prone to unacceptable conditions such as pressure surges. The Board also expects that, as part of its IMP, Enbridge would have a management of change process to identify any change in operating conditions or the piping system that may affect the pressure transient model which would in turn require a re-analysis.

Should the Project be approved, Enbridge would be requested to submit its pressure transient analysis and supporting documentation for review. In addition, through its risk-based compliance verification approach, the Board may also audit and inspect the instrumentation in place to determine its appropriateness and adequacy in effectively identifying any unplanned or uncontrolled operating conditions which may lead to unacceptable conditions, such as a pressure surge on the Pipeline.

3.3.5 Emergency Preparedness and Response

Enbridge stated that an emergency response program (ERP) is in place for the majority of the proposed pipeline route where it parallels the existing Mainline and that the ERP would be modified to include the Project. Enbridge noted that its ERP is on file with the Board and has been developed to be consistent with all regulatory requirements, industry standards (such as Emergency Planning for Industry CSA Z731) and best practices. The ERP includes provisions for addressing both small spills and large releases.

In response to questions from the Board during the hearing, Enbridge committed to conducting an emergency response exercise in the vicinity of the South Saskatchewan River crossing. Enbridge also committed to meeting with Board staff before Alberta Clipper would become operational to discuss its ERP in relation to the South Saskatchewan River.

Views of Parties

Environment Canada (EC) recommended changes to Enbridge's emergency response plans. EC also commented that Enbridge did not provide alternative routings through several wetland complexes and expressed its concern for the potential for oil spills through these areas. These issues were resolved through meetings and correspondence between EC and Enbridge.

The City of Saskatoon, the Town of Outlook and the Meewasin Valley Authority expressed concerns about the crossing of the South Saskatchewan River. In particular, these groups questioned the ability of Enbridge to reach the South Saskatchewan River pipeline crossing in a

timely manner in the event of a spill or leak. They also expressed concern with how emergency measures would be coordinated with local authorities downstream and the quantity of hydrocarbons that could enter the South Saskatchewan River before the pipeline could be shut down. Interested groups also had particular concerns about the threat of a spill or leak on drinking water and recreational use of the river downstream of the crossing.

Views of the Board

Enbridge's existing ERP is on file with the Board and Enbridge has committed to modifying the ERP to incorporate Alberta Clipper.

Due to the extent of public concern related to the crossing of the South Saskatchewan River by Alberta Clipper and other existing pipelines, the Board considers it would be prudent for Enbridge to conduct an emergency response exercise at this river crossing. The Board notes that Enbridge has committed to conduct an emergency response exercise in the vicinity of the South Saskatchewan River crossing. Should the Project be approved, the Board would direct Enbridge to conduct the emergency response exercise within six months following the commencement of operation and to report the results to the Board within 60 days following the completion of the exercise.

Should the Board approve the Project, Enbridge would also be required to arrange a meeting with Board staff prior to the operation of the pipeline to discuss the ERP as it relates to the South Saskatchewan River crossing.

With the incorporation of the modifications to the ERP and the undertaking to complete an emergency response exercise, the Board finds that the measures proposed by Enbridge to deal with emergency preparedness and response are appropriate for the scope of the proposed Project.

Chapter 4

Land Matters

The Board requires applicants to provide a description and rationale for the permanent and temporary lands acquisitions required for a project in order to assess the extent to which new lands may be affected by a project. In addition, applicants are required to advise the Board if they intend to use existing land rights, or if there are areas where new land rights would be required.

The Board also requires a description of the land acquisition process as well as the status of land acquisition activities. This provides the Board with information regarding the company's planned timing of acquisition. Applicants are also required to provide the Board with a copy of the notice provided to landowners pursuant to subsection 87(1) of the NEB Act as well as a copy of the form of the land acquisition agreement.

4.1 Routing and Land Requirements

The routing of the Alberta Clipper pipeline would parallel Enbridge's existing Mainline system from Hardisty to the Canada/U.S. Border near Gretna and follow within or alongside and contiguous to Enbridge's existing RoW or other RoW for approximately 96 percent of its length.

The existing Enbridge Mainline system between Hardisty and Gretna is predominantly located within agricultural lands without significant routing constraints. The pipeline route was selected to avoid areas of high environmental sensitivity, minimize new land disturbance and maximize operational efficiency. Almost the entire length of the existing Enbridge pipeline corridor was preferred because:

- the existing route has been in-service for approximately 55 years and is well known to all parties;
- adequate workspace is generally available along the route;
- environmental, socio-economic or land use constraints are generally not encountered along the route that cannot be effectively mitigated or compensated;
- effects associated with widening an existing pipeline corridor would be incremental, while a new route would affect additional lands and increase the amount of land disturbance; and
- pipeline surveillance and maintenance activities can be conducted more efficiently for pipelines located within a common RoW than for two rights-of-way that are geographically separated.

Four sections of the pipeline route, near Milden, Regina and Kipling, SK and Wawanesa, MB would be located away from the existing Enbridge RoW to avoid land use issues and areas of

limited workspace. The total length of these sections is approximately 98.7 km, of which 76.2 km is contiguous to third party utility corridors and 22.5 km is new non-contiguous RoW.

The 77.4 km Regina route deviation would be the single most substantive deviation from Enbridge's existing RoW. Enbridge noted that the reason for the route deviation was a combination of restrictions by existing industrial and commercial development, potential affects on land that had been subdivided into acreages or was intended for subdivision, and concerns raised by landowners regarding the proximity of the north route to homes and acreages. In response to concerns raised during public consultation, Enbridge performed additional detailed engineering and technical evaluations and identified the new route south of Regina that would minimize impacts to the public.

Other localized route deviations away from the existing Enbridge RoW, totaling 21.5 km, would also be required to accommodate the locations of the new pumping facilities and to address concerns raised regarding the reduction of impacts on commercial and residential developments. These shorter route deviations plus the four longer sections described above account for the 44 km total of new non-contiguous RoW required by the Project.

Land Requirements for New permanent Right of Way

Enbridge stated its objective was to achieve a consistent permanent RoW width of 36.6 m for the majority of the route by combining the width of its existing easement with new RoW required for the Project. To achieve a consistent RoW width of 36.6 m, Enbridge would acquire approximately 18.3 m of new easement. Enbridge submitted design requirements and site-specific factors to demonstrate its need for the increased RoW. These requirements and factors pertain to the physical size of the pipe, constraints imposed by nearby existing facilities, safety and environmental considerations and the space required for machinery and related construction and maintenance activities. Additional easement agreements would also be required for the acquisition of the new permanent RoW.

Land Requirements for Temporary Workspace

To accommodate construction of the Project, Enbridge would also require temporary workspace of up to 22 m in width adjacent to the new and existing RoW. In the event that Enbridge is able to construct Alberta Clipper at the same time as other Enbridge projects, Enbridge would require a further five metres of temporary workspace adjacent to new and existing RoW along the approximately 287 km of RoW shared by the multiple projects. The total width of the permanent RoW and temporary workspace would then be generally between 40 and 45 metres.

Land Requirements for Pumping Facilities

There would be new pump units installed at eight existing Enbridge pump stations along the proposed pipeline in Alberta, Saskatchewan and Manitoba. No new lands would be required for the installation of the new pump units at these existing stations.

There would be one new pump station for which approximately two hectares (ha) of new fee simple land rights would be required. The rights to these lands would be acquired by means of an option to purchase.

Land Requirements for Valve Sites

There would be 45 valve sites required for the pipeline and all would be built within the boundaries of the permanent RoW utilized or acquired for the Project. The total land needed for the valve sites is two hectares and the land rights would be acquired through surface lease agreements.

Other Land Requirements

The estimated land requirements for four construction stockpile sites would be a total of 40 ha. No new land rights would be required for power lines as existing infrastructure would be utilized and the new pump station would be adjacent to existing power lines.

The pipeline would cross linear facilities including rivers, roads, highways, power lines, railways, oil and gas pipelines, and other utilities. Enbridge would design its pipeline and obtain consents from each third party owner of the linear facilities in accordance with requirements of applicable legislation.

4.2 Land Rights and Land Acquisition

The Project would require land rights from private landowners and the Crown in Alberta, Saskatchewan and Manitoba. There are approximately 112 parcels (approximately 92 ha) of land owned by the Crown. Enbridge intended to negotiate directly with the registered owners of the land for the necessary rights to construct, operate and maintain Alberta Clipper. Enbridge commenced its land acquisition process in March 2007 and expected to be completed by October 2008.

Enbridge's land acquisition would comply with the provisions and regulations, including sections 86 and 87 of the NEB Act. Along with the section 87 notice, landowners would receive a detailed Project route map over the lands of each particular landowner and a copy of the National Energy Board's publication entitled *Pipeline Regulation in Canada: A Guide for Landowners and the Public*.

Views of the Board

The Board finds that constructing the majority of the Alberta Clipper pipeline route alongside and contiguous to the Enbridge Mainline or other RoW to be reasonable since the environmental and socio-economic impacts of the Project would be minimized and the risk of construction delays reduced. With respect to the proposed route deviations from the Enbridge Mainline, the Board notes that the rationale for the deviations was to reduce the potential for land use conflicts and therefore finds the criteria and the proposed deviations from the Mainline to be appropriate.

It is the Board's view that a contiguous total right-of-way width of 36.6 m, including the approximately 18.3 m required for Alberta Clipper, is necessary to allow for the construction and operation of the new pipeline

in a safe and efficient manner as well as allowing for maximum use of the existing RoW for construction and operation purposes. The Board therefore finds that Enbridge's anticipated requirements for permanent and temporary land rights are acceptable. The land rights documentation and acquisition process proposed by Enbridge are also acceptable to the Board.

Chapter 5

Public Consultation

The Board promotes the undertaking by regulated companies of an appropriate level of public involvement commensurate with the setting, as well as the nature and magnitude of each project.

This chapter addresses the public consultation program that was undertaken for Alberta Clipper. Enbridge's consultation with Aboriginal groups is discussed in Chapter 6, and its consultation with shippers is discussed in Chapter 8.

5.1 Alberta Clipper Consultation Program

The application stated that the consultation program for Alberta Clipper was based on Enbridge's Corporate Social Responsibility (CSR) Policy, which includes principles such as engaging stakeholders early in the development and planning process, undertaking consultation in an open and transparent manner, and maintaining ongoing dialogue with stakeholders through all project stages.

The Alberta Clipper consultation program was carried out jointly with the consultation program for the Enbridge Southern Lights Project (OH-3-2007). Since the proposed timeline and geographic footprint for the two projects were similar, a joint consultation program was expected to improve clarity and convenience for program participants. Information was provided to stakeholders about both projects by means of correspondence, communication materials, and community open house meetings. Information about the projects was provided to approximately 2,500 landowners and tenants owning or residing on land directly affected by, and adjacent to, the proposed RoW. In addition, people owning or residing on lands within a 200 metre radius of the proposed RoW were informed about the proposed projects.

The Alberta Clipper public consultation program was initiated in September 2006 and had, up to the date of the oral hearing in this proceeding, included a variety of activities including direct meetings with landowners and tenants, meetings with government officials, public notices, open houses, a toll-free project message line and a project website. In response to issues raised by stakeholders, Enbridge modified its route and engaged in negotiations with landowner associations to address outstanding concerns. The issue of routing modifications is discussed in more detail in Chapter 4.0 and in the Alberta Clipper *Environmental Screening Report* which considered that certain route realignments would avoid environmentally sensitive areas, address concerns raised by the public or avoid existing structures such as houses, shelterbelts or oil and gas facilities.

5.2 Consultation Throughout the Life Cycle of the Proposed Facilities

Intervenors filed evidence with respect to their past experience with Enbridge regarding existing Enbridge pipelines on their properties. Concerns were expressed that consultation during the

operations phase of these existing pipelines was insufficient and that Enbridge did not provide adequate notice prior to entering properties to undertake repair and maintenance digs.

Enbridge stated that consultation would continue through the construction and operations phases as required by Enbridge's CSR Policy. During the operations phase, stakeholder communications with respect to the Project facilities would be integrated into the scope of the existing Public Awareness Program conducted by Enbridge along the RoW.

In addition, in the settlement agreement between Enbridge and MPLA and SAPL, the parties agreed to the formation of a Joint Committee for the Alberta Clipper and Southern Lights Projects. The terms of reference for the Joint Committee indicated that it would provide a mechanism to address systemic concerns that arise during and following construction.

With respect to issues that may arise involving landowners who are not members of MPLA or SAPL, at the oral hearing Enbridge indicated that its preference would be to have the Joint Committee represent members of MPLA and SAPL as well as non-members. Alternatively, Enbridge indicated that it would provide a complaint-based process, where issues would be dealt with on a case-by-case basis. Finally, Enbridge suggested that, although one Joint Committee would be preferable, if two are required, Enbridge would constitute two Joint Committees.

Views of the Board

The Board notes that Enbridge conducted consultation for the Alberta Clipper and Southern Lights Projects concurrently. The consultation undertaken identified potentially affected stakeholders and used appropriate methods to engage members of the public and provide them with information about Alberta Clipper.

The evidence provided regarding Enbridge's consultations with over 2,500 landowners and tenants indicates that people who may be affected had an opportunity to provide their views to Enbridge and to the Board prior to a decision being made. The Board also recognizes that modifications to the Project were made in response to public input, further indicating that local knowledge did have a positive impact on the design of the Project.

In particular, the Board recognizes the efforts of Enbridge, MPLA and SAPL to engage in early meaningful consultation and to reach agreement on various matters. The Board is of the view that the initiatives of companies and landowners to develop appropriate forums for discussion and resolution of issues facilitate ongoing dialogue between parties whose rights and interests may be affected by the projects throughout their life cycles.

This being said, the Board reminds Enbridge that, not withstanding the settlement agreement reached with MPLA and SAPL, Enbridge is bound by all applicable legislation and NEB requirements with respect to its NEB-regulated facilities.

The Board notes that as of 12 October 2007, MPLA and SAPL together represented approximately 395 landowners. For landowners who are not members of MPLA or SAPL, and who may have concerns arising from Alberta Clipper, the Board is satisfied that the Joint Committee established by way of the settlement agreement, or alternatively, a second Joint Committee, would provide a mechanism to address issues that may arise during or after construction.

The Board acknowledges concerns raised by the public about the importance of consultation throughout the operations phase of the Project, and in particular, in advance of operations and maintenance activities. With respect to all of its NEB regulated facilities, the Board expects Enbridge to comply with the Board's publication entitled *Operations and Maintenance Activities on Pipelines Regulated under the National Energy Board Act: Requirements and Guidance*. Pursuant to section 4.3 of this document, the Board requires regulated companies to engage parties whose rights or interests may be affected, prior to undertaking operations and maintenance activities. Companies are required to document all engagement activities and maintain documentation for audit purposes.

In order to facilitate a common understanding of Enbridge's undertakings, should the Project be approved, the Board would require Enbridge to post all of its commitments on its company website and to update that list at least quarterly. Further, Enbridge would be expected to maintain detailed records of landowner complaints.

While the Board expects companies to respond to any complaints received from landowners or the public throughout the lifetime of a project, Board staff may also provide assistance through its Landowner Complaint Resolution Program, without recourse to a formal Board hearing. If an issue is complex, or is primarily related to safety or the environment, NEB technical staff may provide advice to help the parties reach resolution. In the event that parties still cannot reach an agreement, the matter may be referred to the Board for a decision.

The Board is therefore of the view that the consultation undertaken by Enbridge for the Alberta Clipper Project was appropriate and provided clarity to stakeholders about the anticipated extent of the Project and its potential impacts. The Board is satisfied that Enbridge's consultation program, when coupled with the Board's proposed conditions, would be adequate to fulfill its consultation requirements.

Chapter 6

Aboriginal Matters

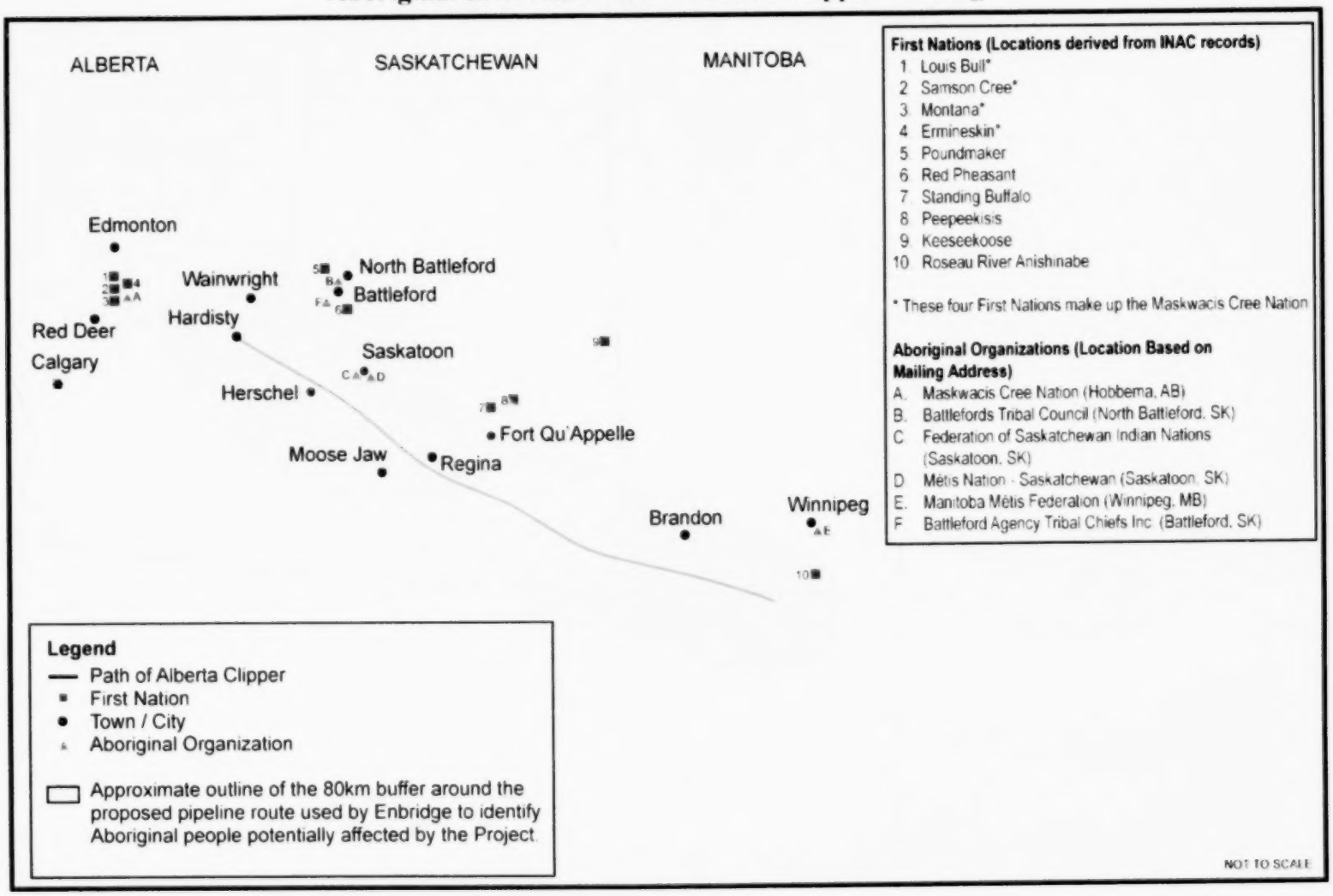
6.1 Participation of Aboriginal Groups in the Regulatory Process

Fourteen Aboriginal groups participated as intervenors in the OH-4-2007 proceeding, including six Aboriginal organizations and eight First Nations. The Aboriginal participants and the extent of their participation are found in Table 6-1. Their locations relative to the route of the proposed project are shown in Figure 6-1.

Table 6-1
Aboriginal Intervenors in the Alberta Clipper Hearing

Intervenor	Filed evidence	Withdrew from process	Presented witnesses	Final argument
Organization:				
Battleford Agency Tribal Chiefs Inc.	√		√	√
Battlefords Tribal Council	√			
Federation of Saskatchewan Indian Nations	√		√	√
Manitoba Métis Federation				
Maskwacis Cree Nation		√		
Métis Nation – Saskatchewan	√		√	√
First Nations:				
Keeseekoose First Nation	√	√		
Montana First Nation		√		
Peepeekisis Cree Nation	√			
Poundmaker Cree Nation	√	√		
Red Pheasant First Nation	√	√		
Roseau River Anishinabe First Nation	√			
Samson Cree Nation		√		
Standing Buffalo Dakota First Nation	√			

Figure 6-1
Aboriginal Intervenors in the Alberta Clipper Hearing



6.2 Aboriginal Engagement by Enbridge

Enbridge commenced work on its Aboriginal engagement for Alberta Clipper in mid-October 2006, guided by its Indigenous Peoples Policy. Enbridge's Indigenous Peoples Policy states its commitments to: consult in a forthright and sincere manner with indigenous peoples; respect traditional ways, land, heritage sites, and the environment; provide fair access to education, training and job opportunities provided by Enbridge projects; build respect for and understanding of indigenous peoples among Enbridge employees and contractors; and encourage indigenous communities to take part in Enbridge community investment funding programs.

Potentially impacted Aboriginal groups were identified and contacted by Enbridge using a 160 km consultation corridor centred on the Enbridge RoW. In addition, Enbridge noted that its RoW currently crosses Swan Lake Indian Reserve No. 7, and that its route deviation of the proposed pipeline from north to south of Regina would cross Keeseekoose First Nation (Keeseekoose) Treaty Land Entitlement (TLE) lands[4]. Aboriginal groups outside of the 160 km corridor who informed Enbridge of their interest in the Project were also consulted. In the application, Enbridge committed to responding to issues raised by Aboriginal parties, and to ongoing follow up and consultation throughout the regulatory process, construction and operations phases of the proposed Project.

Aboriginal engagement included: providing project information, requesting that Enbridge be informed of any community consultation protocols, and requesting discussion of any potential adverse effects of the Project.

Prior to filing its application, Enbridge carried out a second round of Aboriginal engagement in November 2006 in which it followed up on its previous work with the identified Aboriginal communities. This work included preparation for longer term relationships and formalizing company-community consultation processes. Enbridge planned and carried out a third round of engagement after its application was filed in May 2007.

Enbridge summarized the key issues raised by Aboriginal people during its consultation activities in its application. These issues, as highlighted by Enbridge, fell into four main categories: need for general Project information, business and employment opportunities, environmental concerns, and access to land and the RoW. Aboriginal people asked for basic Project data (i.e. pipeline depth), information on monitoring and integrity maintenance, and information on pipeline routing. Business and employment related concerns centred on availability of contracting and employment opportunities, whether First Nations investment in the Project had been considered, and whether Enbridge contracted with Aboriginal-owned companies. Environmental concerns included questions regarding Enbridge's handling of a pipeline release near the Swan Lake First Nation and what Enbridge would do if a pipeline spill contaminated a community water supply. Concerning land and RoW access, Enbridge was

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4 The Crown signed eleven numbered treaties with First Nations across what are now the provinces from Ontario to Alberta and the Northwest Territories between 1871 and 1921. According to these treaties, each First Nation is entitled to have a portion of their traditional lands set aside for them as one or more reserves. However, in a number of cases in Saskatchewan and Manitoba, the full amount of land was not set aside. Land the Crown set aside to make up this shortfall is referred to as Treaty Land Entitlement lands.

asked if it knew that the reroute around Regina would potentially affect lands owned by 13 First Nations, and whether the pipeline could be rerouted to avoid TLE lands and reserves.

Enbridge stated that it had conducted an extensive Aboriginal engagement program which was intended to determine whether Alberta Clipper would have an impact on Aboriginal traditional land use. In the course of the hearing, Enbridge reached agreements with Keeseekoose, Poundmaker Cree Nation (Poundmaker), and Red Pheasant First Nation (Red Pheasant), which resulted in Enbridge obtaining support for the Project from those First Nations.

In the event that impacts on traditional uses are identified, Enbridge stated it would work with Aboriginal groups to determine an appropriate mitigation strategy. Enbridge also committed to respond to the concerns raised by Aboriginal parties and to ongoing consultation during the regulatory process and through the life of the Project. Enbridge further submitted that any Aboriginal group outside of the 160 km corridor could contact Enbridge to initiate consultation regarding their concerns.

Views of Parties

Battleford Agency Tribal Chiefs Inc. (BATC)

BATC, a separate umbrella organization from the Battlefords Tribal Council representing five Saskatchewan First Nations, intervened on behalf of two of its member First Nations: Moosomin First Nation (Moosomin), and Sweetgrass First Nation (Sweetgrass). It stated that Enbridge had not carried out meaningful consultation with Moosomin or Sweetgrass, and that its members had only one meeting with Enbridge on 22 November 2007. Moosomin submitted that prior to the meeting it had received no notice of the Project. BATC submitted further concerns regarding consultation and potential adverse effects on traditional use and sacred sites. It stated that consultation is more than a procedure; consultation must be meaningful and lead to accommodation. Finally, BATC asked that no Certificate be granted unless, or until, Enbridge had addressed Moosomin and Sweetgrass concerns.

Federation of Saskatchewan Indian Nations (FSIN)

During testimony FSIN explained its nature and mandate. FSIN stated that it is a political organization representing 74 First Nations of Saskatchewan and it acts to ensure that all governments, corporations, and interested parties in development projects are aware that they have a duty to consult and accommodate its members. FSIN claimed that its role was to make sure that those obligations are discharged, and that First Nations communities in Saskatchewan know the short, medium, and long term effects of arrangements made with governments and corporations.

FSIN stated that it acted as a facilitator to bring together the 21 potentially impacted First Nations Enbridge had identified; those First Nations are listed in Table 6-2 below. It explained that, while FSIN served as a facilitator and ensured counsel was present to handle legal questions and aspects of environmental issues, each member First Nation retained the autonomy to deal with Enbridge independently.

FSIN stated that it did not agree that only First Nations within 160 km of the Project RoW should be consulted and accommodated by Enbridge, and that neither the Federal Crown nor the Saskatchewan provincial Crown had meaningfully engaged them.

FSIN stated that in September 2007, it notified Canada and Saskatchewan of its wish to consult concerning the Project and was told that Canadian Environmental Assessment Agency would lead federal consultation, but heard nothing back from Saskatchewan. FSIN submitted that the Crown should engage in meaningful consultation about the possible impacts of the Project. Finally, FSIN argued that the Board should ensure that consultation and accommodation are complete before granting approval for the Project.

Table 6-2
Saskatchewan First Nations Potentially Affected by Alberta Clipper as Identified by Enbridge

Carry the Kettle First Nation	Piapot First Nation
Cowessess First Nation	Pheasant Rump Nakota First Nation
Kahkewistahaw First Nation	Poundmaker First Nation
Keeseekoose First Nation	Red Pheasant First Nation
Little Black Bear Band	Star Blanket First Nation
Muscowpetung First Nation	Sakimay First Nation
Ocean Man First Nation	Standing Buffalo Dakota First Nation
Ochapowace First Nation	Sweetgrass First Nation
Okanese First Nation	White Bear First Nation
Pasqua First Nation #79	Whitecap First Nation
Peepeekisis First Nation	

When asked if it had any recommendations to make to the Board concerning the proposed Project, FSIN first outlined some of the challenges FSIN members have faced and stated its view that developments in case law told the federal government and corporations that they must act fairly. FSIN submitted that it was important to carry out traditional land use studies and other activities to ensure that everyone's collective responsibilities to do the right thing for future generations were upheld. FSIN stated that a traditional land use study was important in the case of a project like Alberta Clipper if consultation work was to lead to partnerships that would be beneficial to all concerned parties.

Métis Nation – Saskatchewan (MNS)

The MNS submitted that Enbridge had not considered Métis Aboriginal rights. In its view, this was particularly unfair because Métis of Saskatchewan would be most affected by Alberta Clipper as traditional users of the land the pipeline would cross. The evidence submitted by the MNS included correspondence both to and from Enbridge in which at least one meeting between the parties was noted, despite an acknowledgement that the MNS had recently passed through a period of internal turmoil. The MNS noted that Enbridge sent information to MNS regional offices both during and after the resolution of its internal problems, but did not consult with Métis communities or locals in proximity to the Project. It also submitted that until the MNS was granted late intervenor status and filed evidence, Enbridge did not provide information on its

consultation with Saskatchewan Métis. The MNS was disappointed Enbridge concluded Saskatchewan Métis would not be affected by the Project in view of its understanding of the recent Belhumeur decision[5]. The MNS submitted that Enbridge did not meet the NEB's requirements for company consultation with Aboriginal people as described in the document *Consideration of Aboriginal Concerns in National Energy Board Decisions* of March 2006. The MNS argued that no Certificate should be issued to Enbridge and that the application should be placed in abeyance until Enbridge met the NEB's requirements for company consultation with respect to the Saskatchewan Métis.

Peepeekisis Cree Nation (Peepeekisis)

Peepeekisis stated that Enbridge had not consulted adequately concerning the Project. Peepeekisis submitted that the Crown had not consulted them concerning the Project at all, even though the Project would run through Treaty No. 4 territory which includes their traditional lands. Peepeekisis invited Enbridge to consult with its Governing Body and Council of Elders.

Peepeekisis submitted that the Crown has a duty to consult under section 35 of the *Constitution Act, 1982*, but had not consulted Peepeekisis. Peepeekisis also asserted that if approved, the proposed Project would break the terms of Treaty No. 4, which according to Peepeekisis' understanding called upon them to cede use of land only to the depth of a plough. Peepeekisis stated that case law has established that the Crown must consult Aboriginal groups when a decision or action potentially affecting Aboriginal or treaty rights was being considered. Therefore, in its view the NEB has a responsibility to determine if Crown consultation is adequate before rendering a decision.

Roseau River Anishinabe First Nation (Roseau River)

In its written evidence Roseau River stated that Enbridge has not consulted or accommodated them concerning any of Enbridge's existing facilities on their traditional territory. However, Roseau River noted that it had met with Enbridge several times concerning Alberta Clipper and remained willing to pursue discussions with Enbridge. Roseau River also stated that the Crown had not consulted with them concerning the Project, although Roseau River has, through its counsel, contacted the Minister of Indian and Northern Affairs to request direct consultation.

Roseau River submitted that the Crown has not upheld its duty to consult or its treaty obligations under Treaty No. 1. Roseau River indicated that it has attempted to have the Crown's failure to uphold its treaty obligations rectified via established processes such as the TLE Process without success. Since, in its view, the NEB process was the only venue available for Roseau River to express its concerns, it opted to participate in that process. However, Roseau River noted that it did not accept either the NEB or Enbridge as surrogates for the Crown. According to Roseau River, meaningful consultation occurs before a decision is made; if there has not been meaningful consultation, the Project should not be approved.

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5 R. v. Belhumeur, 2007 Saskatchewan Provincial Court 114 [CANLII http://www.canlii.org/en/sk/skpc/doc/2007/2007skpc114/2007skpc114.html].

Standing Buffalo Dakota First Nation

Standing Buffalo stated that no further direct contact with Enbridge or through their counsel has occurred since the Southern Lights proceeding (OH-3-2007) due to concerns about respect for without prejudice or privileged communications arising in that hearing. It stated that the Crown has not consulted them concerning Alberta Clipper, which would pass through Standing Buffalo's claimed traditional territory.

In the material that Standing Buffalo submitted, it stated that it has unextinguished Aboriginal title and governance rights, but does not have a treaty with Canada. It claimed that it has been unable to negotiate a treaty with Canada despite numerous meetings with the federal government and the Saskatchewan Treaty Commissioner's recommendation that their issues should be addressed. Standing Buffalo noted that it had informed the Saskatchewan Office of the Treaty Commissioner and Indian and Northern Affairs Canada that it was intervening in the Alberta Clipper hearing and that its intervention was related to treaty status. Standing Buffalo stated that, to date, Canada has not consulted with it, although Canada has sent correspondence via the new Minister of Indian and Northern Affairs and the Canadian Environmental Assessment Agency. Standing Buffalo noted that it had also received correspondence from the Attorney General concerning a legal matter related to another National Energy Board proceeding.

6.3 Impacts of the Project on Aboriginal People

Enbridge submitted that the Project would have minimal impact on Aboriginal people along the proposed Project RoW. Specifically, it noted the project runs through lands covered by Treaty No. 1, Treaty No. 2, Treaty No. 4, and Treaty No. 6, and most of the Project would follow Enbridge's existing RoW.

Enbridge submitted that its Aboriginal Engagement work would continue throughout the regulatory process and through the life cycle of the Project, should it be approved. As Aboriginal groups identify concerns, Enbridge claimed that mitigation strategies would be implemented as required and mutually acceptable solutions to problems would be developed. It stated that, since the Project follows predominantly existing RoW, and where it does not, it follows pre-existing linear disturbances on land used primarily for agriculture or ranching, Project impacts on current traditional use would be minimal. Enbridge also filed a Heritage Resources Discovery Contingency Plan. In argument, Enbridge stated that neither its consultation work nor the Aboriginal intervenors provided any evidence that the Project would have specific adverse impacts on any Aboriginal rights or on the current use of lands for traditional purposes by Aboriginal people.

Views of Parties

Battleford Agency Tribal Chiefs Inc.

The BATC expressed its concerns about the potential adverse effects of the Project on sacred sites such as the petroglyphs and tipi rings at Herschel, Saskatchewan and on plant gathering for traditional and medicinal purposes. Chief Swiftwolfe of Moosomin First Nation testified that the Project was already impacting her community, and that the land taken for a RoW would be lost

forever to her community. Chief Wuttunee, chairman of the BATC testified that obstruction of waterways related to pipeline development has both physical and spiritual consequences for First Nations people who traditionally use those waterways and the sacred sites around them. Chief Wuttunee also noted he was not convinced that the Board had a full understanding of the impacts on the area crossed by the Project due to a lack of Aboriginal consultation.

Federation of Saskatchewan Indian Nations

FSIN stated that Saskatchewan First Nations have Aboriginal, inherent, and Treaty rights that they currently exercise. FSIN claimed that infringements on those rights have already occurred, and that ongoing developments have made it more difficult to exercise those rights because those developments have damaged the environment and therefore the subsistence economy. FSIN expressed its concern about cumulative impacts to Aboriginal and treaty rights by the various projects on First Nations' traditional lands in Saskatchewan. In FSIN's view, a First Nation traditional land use study should be undertaken by Enbridge.

Métis Nation - Saskatchewan

According to the MNS, Métis Aboriginal rights have not been considered or accounted for by Enbridge in its Aboriginal consultation. While Enbridge had sent information to MNS regional offices, the MNS acknowledged that during its recent period of organizational turmoil, the MNS experienced difficulty communicating with Enbridge. The MNS stated it does not know the specific potential impact of the pipeline, since it believes a traditional land use study is necessary to determine this and the MNS does not have such a study completed. However, the MNS was able to perform a very preliminary assessment and noted concerns about archaeological sites, historical sites, and traditional harvesting. The MNS was surprised that Enbridge found the Project would have no affect on the MNS in light of its understanding that no Métis traditional land use studies have been carried out in Saskatchewan.

Peepeekisis Cree Nation

Peepeekisis was concerned about the potential disturbance of archaeological sites and a sacred burial ground by the construction of the Project. Peepeekisis submitted that the ancestors of the Peepeekisis community who signed Treaty No. 4 agreed to cede no more than the depth of a plough for development; the proposed Project would exceed this depth, breaking the terms of the Treaty.

Roseau River Anishinabe First Nation

Roseau River submitted that the Project would pass through its traditional territory, which includes most of southern Manitoba. It stated that the Project would occupy and affect lands and resources to which Roseau River has both maintained and asserted ongoing Aboriginal and Treaty rights. In their view, the Project would adversely affect the constitutionally protected rights and interests of Roseau River.

Red Pheasant First Nation, Keeseekoose First Nation, and Poundmaker Cree Nation

Although Red Pheasant, Keeseekoose, and Poundmaker settled with Enbridge, and subsequently decided to withdraw their interventions and file letters of support for the Project, they previously brought forward concerns about potential adverse impacts to traditional use, hunting rights, and potential adverse impacts to traditional and TLE Lands. These concerns were considered in the Board's Environmental Screening Report.

Standing Buffalo Dakota First Nation

Excerpts of transcripts of the OH-2-2007, OH-1-2007, and OH-3-2007 proceedings were filed on the record for the Alberta Clipper hearing, in which Standing Buffalo Elders explained the relationship between Standing Buffalo and their traditional lands in detail.

The Elders explained that the Dakota have built many sacred monuments and their traditional practice is to leave them undisturbed once completed as a sign of respect. Therefore, while they may not currently use Dakota sites for traditional purposes, they are still sacred and must be protected. The Elders were concerned about the potential for the disruption or destruction of sites, and noted their concern was not limited to sites in Saskatchewan because they have a responsibility for their whole traditional territory.

In the Dakota view, all land is sacred and the Dakota people have stewardship obligations toward their lands. According to the traditional belief system of Standing Buffalo, any kind of construction project is an interference with the land and therefore an impact.

Standing Buffalo noted that the Project would cross the traditional territory it claims and reiterated that any construction project is an interference with the land requiring at least a duty to consult.

Views of the Board

The Board requires applicants to initiate early discussions and consultation with Aboriginal groups potentially affected by a proposed project. This allows for early exchange of information and for matters of concern to be considered at the onset and through the design phase. The extent of the consultation that needs to be carried out is determined, to a large extent, by the scope of a project.

In keeping with the Board's consultation requirements, Enbridge identified a 160 km wide corridor centred along the proposed route and consulted with Aboriginal groups potentially affected by the proposed Project within that corridor. Among the groups it consulted were First Nations and Métis organizations in all three of the provinces crossed by the Project, including: ten First Nations and two Métis Regional offices in Alberta, twenty-one First Nations and four Métis regional offices in Saskatchewan, and eight First Nations and the Manitoba Métis Federation in Manitoba. Enbridge also consulted with the following umbrella

organizations: the Federation of Saskatchewan Indian Nations, the Dakota Ojibway Tribal Council, the Battlefords Tribal Council, and the Tribal Chiefs Peacekeeping Conservation Commission. The Board is of the view that the design of the consultation program was adequate for the purpose of identifying and understanding the potential impacts of the Project on Aboriginal people. The Board notes that consultation with Aboriginal people began in October 2006 and is ongoing.

Once an application is filed with the Board, all interested Aboriginal people and all other interested parties have the opportunity to participate in the Board's process to make their views known so they can be considered in the decision-making process. The hearing process provides all parties with a forum in which they may receive further information, may question and test evidence put forward, and may present their own views with respect to a proposed project.

Although certain Aboriginal groups were not identified in the initial rounds of consultation, the Board considers that Enbridge has since made reasonable efforts to consult with those groups to address the concerns raised once identified. The Board expects Enbridge to continue its consultation with Aboriginal groups as it has committed to do, particularly those identified late in the process. In the event that the Project is approved, the Board would include a condition to direct Enbridge to file with the Board, and consulted Aboriginal groups, an update on its Aboriginal consultation activities.

The Board commends Enbridge and Red Pheasant, Keeseekoose and Poundmaker for their efforts in achieving settlement agreements regarding their concerns and issues associated with the proposed Project.

To facilitate the participation of Aboriginal groups in the hearing process the Board scheduled hearing days in Brandon, Saskatoon, Regina, and Calgary. In addition, the Board granted late intervenor status to six Aboriginal groups (listed in Chapter 1) and leave to file late evidence to three Aboriginal groups (BATC, FSIN and Red Pheasant), and agreed to accept oral traditional evidence although the standard practice is to require that evidence be filed in advance of the oral hearing. The facilities selected for the hearing were also amenable to the performance of traditional Aboriginal ceremonies.

In the case of the Project, the Board notes that fourteen Aboriginal groups participated in various ways in the proceeding. The Board is satisfied that the Aboriginal groups were provided with an opportunity to participate fully in its process, and bring their concerns to the Board's attention.

A number of Aboriginal intervenors expressed concerns regarding how the proposed Project could impact undiscovered historical, archaeological and

sacred burial sites. The Board notes Enbridge's commitments to work with Aboriginal communities in the event that such sites are discovered and the implementation of a Heritage Resource Discovery Contingency Plan which includes specific procedures for the discovery and protection of archaeological, palaeontological and historical sites including the evaluation and implementation of appropriate mitigation measures. The Board also notes Enbridge's decision to route the pipeline path to avoid the Thornhill Burial Mounds site. However, in view of the importance of these sites, should the Project be approved, the Board would include a condition to direct Enbridge to immediately cease all work in the area of any archaeological discoveries and to contact the responsible provincial authorities. This would ensure the protection and proper handling of any archaeological discoveries and potential impacts to traditional use. If the Project were to be approved, the Board would also direct Enbridge to file with the Board, and make available on its website, reports on its consultation with Aboriginal groups concerning the Thornhill Burial Mounds.

In terms of the potential adverse impacts of the Project to current traditional use, the Board notes that there were suggestions of current traditional use over the proposed route, but no specific evidence was provided. The large majority of the facilities would be buried and would be completed within a short construction window and a large majority of the land required for the Project has been previously disturbed and is generally privately owned and used for agricultural purposes. In view of these facts and Enbridge's commitment to ongoing consultation with Aboriginal people throughout the life cycle of the Project, the Board is of the view that potential Project impacts to Aboriginal interests, particularly with regard to traditional use over the RoW would be minimal and would be appropriately mitigated. The Board is satisfied that ongoing discussions between the Applicant and Aboriginal people, together with the Heritage Resource Discovery Contingency Plan, would minimize potential impacts to traditional use sites, if encountered.

The Board considers that Enbridge's Aboriginal engagement program was appropriate to the nature and scope of the Project. In view of Enbridge's demonstrated understanding that Aboriginal engagement is an ongoing process, its commitments and the proposed conditions, the Board finds that Enbridge's Aboriginal engagement program would fulfill the consultation requirements for Alberta Clipper.

Chapter 7

Environment and Socio-Economic Matters

The Board considers environmental and socio-economic matters under both the CEA Act and the NEB Act. The Board expects applicants to identify and consider the effects a project may have on bio-physical and socio-economic elements, the mitigation to reduce those effects, and the significance of any residual effects once the mitigation has been applied.

This chapter provides a description of the environmental assessment process used by the NEB for the Project. It also addresses the socio-economic issues that are not evaluated in the CEA Act ESR.

7.1 Environmental Screening Process

Alberta Clipper would require a Certificate of Public Convenience and Necessity under section 52 of the NEB Act and thus, triggers the requirement for an environmental assessment under the CEA Act. Since the Project would not require more than 75 km of new RoW, as defined in the CEA Act *Comprehensive Study List Regulations*, the Project was subjected to a screening level of environmental assessment under the CEA Act.

Pursuant to the CEA Act *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements* (Federal Coordination Regulations), the NEB coordinated Responsible Authority (RA) and Federal Authority (FA) involvement in the CEA Act process. To reduce potential duplication, the Board and other RAs worked together to create a screening process intended to meet the needs of all RAs in carrying out their environmental assessment responsibilities.

Following the oral portion of the hearing the Board issued a draft ESR on 9 January 2008 for public review and comment. The Board received comments from Fisheries and Oceans Canada, Indian and Northern Affairs Canada, Transport Canada, Health Canada, Manitoba Water Stewardship, Manitoba Conservation, Saskatchewan Environment, Saskatchewan Environmental Society and the Métis Nation – Saskatchewan. Enbridge subsequently replied to the comments that were provided.

The ESR reflects parties' comments and the Board's assessment of the bio-physical and socio-economic effects of the Project and mitigation measures based on the Project description, factors to be considered, and the scope of those factors. The ESR also includes recommendations for conditions to be included in any Board regulatory approvals.

All known environmental and socio-economic effects covered by the CEA Act are assessed in the ESR.

Views of the Board

With respect to its regulatory decision under the NEB Act, the Board has considered the CEA Act ESR and the recommendations included therein.

The Board determined in the ESR that, with the implementation of Enbridge's environmental protection procedures and mitigation measures and the Board's recommendations, the proposed Project is not likely to cause significant adverse environmental effects. In the event that the Project is approved, the Board would convert the recommendations contained in the ESR, into conditions of its approval.

For details regarding the Board's assessment of the environmental and socio-economic effects evaluated pursuant the CEA Act, the reader is referred to the ESR. Copies of the ESR are available in the NEB library or on-line within the Board's Regulatory Documents at www.neb-one.gc.ca.

7.2 Socio-Economic Matters

The Board expects companies to identify and consider the impacts a project may have on socio-economic conditions including the mitigation of negative impacts and the enhancement of project benefits.

Potential socio-economic effects covered by the CEA Act are included in the ESR. The CEA Act contemplates indirect socio-economic effects caused by a change to the environment as a result of the project. Direct socio-economic effects caused by the existence of the project itself are assessed under the NEB Act and are discussed below. Other economic effects such as employment are addressed in Chapter 9.

7.2.1 Land Use

In its application, Enbridge stated that most of the land traversed by the Project would be privately owned agricultural lands. The application also indicates that several small and medium-sized communities are located in the vicinity of the Project. The Towns of Morden, MB, Dodsland, SK and the Villages of Montmartre, SK and Maryfield, SK would be directly affected by the construction of the pipeline. Issues related to land use include depth of cover and potential disruption to towns and villages.

7.2.2 Depth of Cover

The issue of depth of cover was discussed earlier in these Reasons as it applied to engineering matters. The following deals with depth of cover as it pertains to socio-economic matters.

The application highlighted concerns raised by landowners about their safety when operating equipment and vehicles over pipelines. These points were also raised by intervenors during this proceeding.

Enbridge submitted that it would install the proposed pipeline at a depth of 0.9 m in soil, which exceeds the requirement of 0.6 m as specified in the CSA standard for LVP pipelines. Enbridge submitted that even at 0.6 m of coverage, the depth of cover would provide sufficient protection and would allow for equipment typically used in agricultural activities to safely cross the pipeline.

Enbridge acknowledged that its Integrity Dig Program has revealed locations along existing pipelines adjacent to the proposed Project where the depth of cover was shallower than 0.6 m. In these cases, Enbridge submitted that mitigation measures, appropriate to the particular location, were applied including: additional signage and management; adding cover; lowering the pipeline and mechanical protection.

The settlement agreement between Enbridge and MPLA and SAPL included a section dealing with depth of cover. This agreement provided that Enbridge would undertake a depth of cover survey of its existing lines that are within or contiguous to Alberta Clipper. Where the depth of cover is found to be less than 0.6 m and is a safety concern or causes interference with cultivation, Enbridge would restore the depth of cover to 0.6 m, implement other mitigative measures, or compensate the landowner for resulting crop loss or damages.

7.2.3 Disruptions to Towns and Villages

Enbridge indicated that there may be disruption caused to several urban areas during construction.

Enbridge has confirmed that, in consultation with local communities, it would develop urban construction plans that would include, but not be limited to the following issues: fencing, signage, use of small landscape equipment where space is limited; storage of topsoil remotely where there is limited storage space nearby; keeping construction spreads tight; allowing safe passage areas for pedestrians and cyclists; and implementing 24-hour security where warranted.

No parties expressed views on this topic.

Views of the Board

The Board is cognizant of the fact that there are affected landowners who are not parties to the settlement agreement between Enbridge and MPLA and SAPL. The Board notes that Enbridge indicated that there are approximately 1,142 landowners whose land will be traversed by the Project. As of 12 October 2007, MPLA and SAPL together represented approximately 395 landowners, and it is not clear if all of these landowners own land along the proposed Alberta Clipper route.

Safety and the perceived safety of NEB-regulated facilities is an important priority for the Board and these issues were raised in this matter by members of MPLA and SAPL. The Board notes that MPLA and SAPL resolved their issues about the Project and signed a settlement agreement with Enbridge. To the extent that other landowners who did not intervene in this proceeding may have concerns, it seems likely these would be similar to those expressed by members of MPLA and SAPL. As set out

earlier in these Reasons where depth of cover was discussed in relation to engineering matters, the Board has found that installation of the pipeline at a depth of 0.9 m of cover is acceptable. In addition, should the Project be approved, the Board would impose a condition requiring Enbridge to implement a depth of cover monitoring program. The Board is of the view that, in addition to the Board's mandate and practices and Enbridge's ongoing commitment to consultation (as discussed in Chapter 5), the implementation of the measures outlined above would be sufficient to address the concerns raised by landowners about their safety when operating equipment and vehicles over the pipeline.

With respect to disruptions to the towns and villages that may be caused by construction of Alberta Clipper, the Board is of the view that the development of urban construction plans, in consultation with those affected, would adequately address this issue.

7.2.4 Emergency Services & Accommodation

In its evidence Enbridge relayed that police officials and municipal representatives had expressed concerns about the potential strain on local communities that could be caused by an influx of construction workers. The police indicated that the amount of strain imposed on the communities would depend on the behaviour of the workers. Municipal representatives noted that the strain on local accommodations would depend on the planning and timing of construction and the associated accommodation.

Enbridge has committed to dealing with these concerns through the development and implementation of urban construction plans, a workforce accommodation plan and a written code of conduct. Both of the latter two documents would be attached to the Alberta Clipper EPP that would be submitted to the Board for approval prior to commencement of construction.

No parties expressed views on this topic.

Views of the Board

The Board recognizes the potential strain that an influx of construction workers can have on local communities. In this case, the Board is of the view that, should the Project be approved, the measures planned by Enbridge would address the concerns raised by local police and municipal representatives. In particular, the development and implementation of a workforce accommodation plan and a code of conduct would address the concerns about worker behaviour and pressure on local accommodation. The Board notes Enbridge's commitment to attach these two documents to its Environmental Protection Plan (EPP), which would be submitted to the Board for approval prior to the commencement of construction. The Board also notes that all of Enbridge's commitments would be posted on the company's website and will be updated, at the very least, on a quarterly basis.

Chapter 8

Tolls and Tariffs

Enbridge applied under Part IV of the NEB Act for the approval of a proposed tolling methodology for Alberta Clipper. On 28 June 2007, Enbridge filed the Alberta Clipper Canada Settlement (Settlement) along with a letter of support from CAPP for the proposed Project. The Settlement described the principles for the determination and recovery of the revenue requirement for Alberta Clipper. Subsequent to the filing of the Settlement, Enbridge requested that the Board approve the Settlement pursuant to Part IV of the *NEB Act* and the Board's *Guidelines for Negotiated Settlements of Traffic, Tolls, and Tariffs*, June 2002 (Guidelines).

8.1 Settlement Process

Enbridge submitted that, as a result of initial discussions with industry, it became clear that there was broad support and a preference for a rolled-in tolling approach whereby Alberta Clipper would be integrated with and form part of the existing Enbridge Mainline system. In the fall of 2006, Enbridge began intensive discussions with individual producers, shippers, and with CAPP about the Project scope, timing, and commercial terms. Producers and shippers indicated their preference for Enbridge to negotiate the commercial terms through CAPP, which has been the customary approach taken with respect to rate and capacity settlements related to the Mainline system. The Settlement was ultimately reached with CAPP in June 2007, and was subsequently distributed to CAPP members.

Enbridge also provided evidence that it discussed the Project with shippers at Enbridge's annual Shippers Conference held in June 2007 to which all shippers were invited, and held meetings about the Project with individual shippers and other interested parties who were either non-CAPP members or were not active in the CAPP committee process. Enbridge also held an open house in Calgary in September 2007 to provide an additional forum to exchange information regarding Alberta Clipper and other expansion projects.

Enbridge submitted that the Settlement was concluded on a negotiated basis and that no individual components of the Settlement should be construed as representing the position of negotiating parties. It was the intention of parties to the Settlement that it be viewed as a whole.

Enbridge submitted that the Settlement was the culmination of an intensive negotiation process on many issues and reflects the parties' agreement on the commercial terms of the Project. In addition, no shipper or producer expressed concern about the Settlement. Therefore, Enbridge submitted that the tolls resulting from the Settlement would be just and reasonable and not unjustly discriminatory, and that the Settlement should be approved as filed.

8.2 Alberta Clipper Canada Settlement

The term of the Settlement extends from 28 June 2007 to the fifteenth anniversary of the in-service date of the Project, which is anticipated to be 1 July 2010. The target in-service date

occurs six months beyond the expiry of Enbridge's current five-year 2005 Incentive Tolling Settlement (2005 ITS) and six months into the prospective 2010 Incentive Tolling Settlement (2010 ITS). Therefore, the recovery of the Alberta Clipper revenue requirement would begin during the term of the prospective 2010 ITS.

The Settlement divides the Alberta Clipper revenue requirement into two components to be rolled into Mainline tolls. The first component is the non-capital revenue requirement (NCRR), which includes operating expenses, pipeline integrity capital costs, and maintenance capital costs. The recovery of the NCRR would be negotiated as part of the 2010 ITS and included in the base toll calculation under the 2010 ITS. The second component is the capital revenue requirement (CRR). The CRR would be added to the base toll calculated under the 2010 ITS as a separate component of the overall Mainline tolls.

The rate base of Alberta Clipper would be comprised of all reasonable capital costs, including an allowance for funds used during construction (AFUDC), a capital penalty or bonus on each, and an allowance for working capital. The adjusted capital costs and AFUDC in rate base would be depreciated based on an initial expected economic life of 30 years.

Debt financing would be used to fund 55 percent of the rate base and the remaining 45 percent would be funded by equity. The cost of debt would be the weighted average cost of long-term debt issued near the target in-service date, and the annual return on equity (ROE) would be the NEB multi-pipeline rate of return (or the equivalent) plus 225 basis points.

The Settlement includes three incentive mechanisms to encourage Enbridge to ensure the target in-service date and operation capacity commitment are achieved, while controlling costs. To encourage the control of capital costs, a capital cost risk sharing mechanism would be used. The amount of capital costs booked to rate base would be impacted by the extent to which the actual controllable capital costs are under or over certain threshold values specified in the Settlement. The risk sharing mechanism essentially modifies the base ROE that Enbridge can earn.

Enbridge undertook a probabilistic analysis on total costs. This analysis determined that there was a 10 percent chance that total costs would be less than or equal to $1,588 million, a 55 percent chance that total costs would be less than or equal to $2,159 million, and a 90 percent chance that total costs would be less than or equal to $2,689 million.

Table 8-1
Capital Costs for Alberta Clipper

Cost Estimate	Non-Controllable	Controllable	Total
		($ millions)	
P10	454	1,134	1,588
P55	626	1,533	2,159
P90	784	1,906	2,689

Note: The capital cost estimates exclude AFUDC.

For the purpose of the risk sharing mechanism, each of the three total cost estimates was divided into controllable and non-controllable costs, as illustrated in Table 8-1. Controllable costs represent approximately 71 percent of total costs, while non-controllable costs represent the remaining 29 percent, for all three thresholds. The three thresholds for controllable costs were used to determine a rate base penalty or bonus. If actual controllable costs exceeded the P55 estimate, then a portion of actual costs would be excluded from rate base. If the actual controllable costs were less than the P55 estimate, then the amount included in rate base would be grossed-up to create a bonus. Between the P10 and P90 thresholds, the Settlement allocates risk to shippers and Enbridge on a 75:25 ratio. Beyond these thresholds, where controllable costs were less than P10 or controllable costs were greater than P90, the Settlement allocates the risk 50:50 to shippers and to Enbridge.

The risk sharing mechanism translates to a higher or lower effective return on equity compared to the base ROE of the NEB multi-pipeline rate plus 225 basis points.

The Settlement gives CAPP the right to conduct a review and audit of the capital costs and the allocation between controllable and non-controllable costs.

8.3 Toll Impact

There are two key periods in which to consider the toll impact of Alberta Clipper on Mainline tolls. The first period, the first full-year of operation in 2011, is illustrated in Table 8-2. Enbridge submitted that Mainline tolls on a pre-versus a post-Alberta Clipper basis would increase between a low of approximately 18 percent if the P10 capital costs were realized, to a high of 36 percent in 2011 if the P90 scenario was realized. If the P55 scenario was realized, tolls would be about 27 percent higher. Therefore, if Alberta Clipper were to be approved and constructed, Mainline tolls would be between 18 percent to 36 percent higher in 2011.

The second period is 2011 compared to 2007 tolls. The 2007 tolls that are comparable to those forecasted for 2011 are outlined in Enbridge's NEB Tariff No. 275, plus the receipt terminalling charge of $\$0.835/m^3$. When the equivalent 2007 tolls are compared to those proposed for 2011, the toll impact is more modest (see Table 8-3). On this basis the toll impact for Light Petroleum would vary between an almost seven percent decrease, a less than one percent increase, and an increase of more than seven percent depending on which capital cost outcome might be realized: P10, P55, or P90 respectively.

Views of Parties

CAPP submitted that new pipeline capacity is needed and that the timing of the Alberta Clipper in-service date in mid-2010 is important. To transport the growing supply of crude oil, CAPP indicated that it was essential to create incentives in the Settlement, while also controlling capital costs, to help ensure that Alberta Clipper was in-service by mid-2010. CAPP argued that broad industry support for the Settlement was a reflection of the need for new pipeline capacity, the benefit that would be provided by new capacity and the importance that producers place on timely expansion of pipeline capacity. CAPP further argued that broad industry support made a

common carriage expansion possible such that incremental capacity would become available to all shippers on a multi-pipeline, multi-product system.

BP Canada Energy Company, Canadian Oil Sands Limited, ConocoPhillips Canada Limited, Devon Canada Corporation, EnCana Corporation, Flint Hills Resources Canada LP, Japan Canada Oil Sands Limited, Nexen Inc., Shell Canada Limited, and Suncor Energy Marketing Inc. registered as intervenors with an interest in the proceeding and reserved the right to participate. However, none of these commercial parties participated beyond monitoring the proceeding.

Table 8-2
Impact on Mainline Tolls

Enbridge Mainline Tolls: Edmonton to U.S. Points

Pre- versus post-Alberta Clipper Project

	Forecast Future Tolls ($/m³)						
	P10 2011	**P90 2011**	**P55 2011**	**P55 2012**	**P55 2013**	**P55 2014**	**P55 2015**
Condensate							
Pre-Clipper	6.139	6.139	6.139	6.101	6.095	5.875	5.850
Post-Clipper	7.214	8.290	7.774	7.523	7.328	7.177	7.007
Increase	1.075	2.151	1.635	1.422	1.233	1.302	1.157
Percent Increase	17.5%	35.0%	26.6%	23.3%	20.2%	22.2%	19.8%
Light							
Pre-Clipper	6.623	6.623	6.623	6.585	6.573	6.346	6.309
Post-Clipper	7.793	8.963	8.403	8.120	7.900	7.755	7.567
Increase	1.170	2.340	1.780	1.535	1.327	1.409	1.258
Percent Increase	17.7%	35.3%	26.9%	23.3%	20.2%	22.2%	19.9%
Medium							
Pre-Clipper	7.114	7.114	7.114	7.070	7.057	6.812	6.774
Post-Clipper	8.372	9.636	9.026	8.724	8.491	8.334	8.133
Increase	1.258	2.522	1.912	1.654	1.434	1.522	1.359
Percent Increase	17.7%	35.5%	26.9%	23.4%	20.3%	22.3%	20.1%
Heavy							
Pre-Clipper	7.963	7.963	7.963	7.914	7.901	7.620	7.580
Post-Clipper	9.387	10.814	10.127	9.787	9.526	9.339	9.112
Increase	1.424	2.851	2.164	1.873	1.625	1.719	1.532
Percent Increase	17.9%	35.8%	27.2%	23.7%	20.6%	22.6%	20.2%
NGL							
Pre-Clipper	6.013	6.013	6.013	5.975	5.975	5.768	5.743
Post-Clipper	7.070	8.120	7.611	7.359	7.177	7.038	6.868
Increase	1.057	2.107	1.598	1.384	1.202	1.270	1.125
Percent Increase	17.6%	35.0%	26.6%	23.2%	20.1%	22.0%	19.6%

Table 8-3
Impact on Mainline Tolls

Enbridge Mainline Tolls: Edmonton to U.S. Points

2007 versus Forecast Tolls including the Alberta Clipper Project ($/m^3)

	Tariff NEB No. 275	Receipt Terminalling	2007[A]	2011	2011 - 2007	
Condensate					**Difference**	**Percent**
P10	6.987	0.835	7.822	7.214	-0.608	-7.8%
P55	**6.987**	**0.835**	**7.822**	**7.774**	**-0.048**	**-0.6%**
P90	6.987	0.835	7.822	8.290	0.468	6.0%
Light						
P10	7.522	0.835	8.357	7.793	-0.564	-6.7%
P55	**7.522**	**0.835**	**8.357**	**8.403**	**0.046**	**0.6%**
P90	7.522	0.835	8.357	8.963	0.606	7.3%
Medium						
P10	8.057	0.835	8.892	8.372	-0.520	-5.8%
P55	**8.057**	**0.835**	**8.892**	**9.026**	**0.134**	**1.5%**
P90	8.057	0.835	8.892	9.636	0.744	8.4%
Heavy						
P10	8.993	0.835	9.828	9.387	-0.441	-4.5%
P55	**8.993**	**0.835**	**9.828**	**10.127**	**0.299**	**3.0%**
P90	8.993	0.835	9.828	10.814	0.986	10.0%
NGL						
P10	6.854	0.835	7.689	7.070	-0.619	-8.1%
P55	**6.854**	**0.835**	**7.689**	**7.611**	**-0.078**	**-1.0%**
P90	6.854	0.835	7.689	8.120	0.431	5.6%

Note: A - 2007 Mainline tolls equals the sum of the two adjacent columns.

Views of the Board

In accordance with Part IV of the NEB Act, the Board must be satisfied that tolls and tariffs are just and reasonable and not unjustly discriminatory. Negotiated settlements are regarded by the Board as an opportunity for a pipeline and its shippers to resolve issues without resorting to an adversarial hearing process. To this end, the Board issued revised Guidelines in June 2002 that outline the requirements of an acceptable negotiated tolling settlement. A settlement must neither fetter the Board's ability and discretion to consider any public interest consideration nor be illegal or contrary to the Act. If the settlement process provides a fair opportunity for interested parties to participate, places adequate information on the public record to understand the basis for the agreement, and is not opposed by any party, then the Board would

normally be able to conclude that the resultant tolls are just and reasonable and not unjustly discriminatory.

While the Board supports Enbridge's efforts to provide cost information in a progressive probabilistic analysis format, it found that the information provided on the cost thresholds (i.e. P10, P55, and P90) for total costs was minimal, and no information was provided to explain which costs drivers were important. Furthermore, the evidence indicated that the probabilistic analysis was only conducted for total costs and there was no evidence indicating that probabilistic results were examined for the controllable capital cost component. Finally, the allocation of total costs to controllable and non-controllable components appears to have been done by applying an approximately fixed ratio and this, for the purpose of commercial negotiations.

The Board is of the view that standard statistical methods provide little support for assuming that the probability thresholds estimated for total costs can be allocated in a fixed manner to P10 and P90 values for component cost categories. The Board finds that the evidence did not support a claim that controllable costs have only a 10 percent probability of being below the threshold referred to as P10 or a 10 percent probability of exceeding the P90 threshold. In the event that Enbridge submits probabilistic analysis of costs in the future, the limitations noted above should be addressed, for example by providing a probabilistic analysis of factors which play a key role in impacting other parties, such as shippers.

The Board accepts that the Settlement, in this case, is the result of the desire of Enbridge and its shippers, as represented by CAPP, to negotiate and agree on the commercial terms for the Project. In particular, the Board found the testimony provided by the CAPP witness to be of assistance in coming to this conclusion.

The Board has considered the Settlement and the position of parties and is of the view that the Settlement meets the criteria of the Guidelines and that the methodology and the resultant tolls would be just and reasonable and not unjustly discriminatory. The Board therefore approves the Settlement pursuant to Part IV of the NEB Act and the Guidelines.

Chapter 9

Economics, Finance, Supply & Markets

In making its determination on the economic feasibility of a proposed project, the Board assesses whether the facilities are needed and would be used at a reasonable level over their expected economic life. In order to make this determination, the Board considers the evidence submitted on the supply that would be available to be shipped on the pipeline, the availability of adequate markets and the adequacy of existing pipeline capacity. As well, the Board considers evidence related to financing the construction and ongoing operations of the proposed project and the likelihood that costs of the project would be recovered through tolls.

9.1 Crude Oil Supply

In support of its application, Enbridge submitted a report prepared by CAPP entitled *CAPP Crude Oil Production and Supply Forecast 2006-2020, May 2006*. Enbridge also submitted two of its own long-term forecasts of oil supply: *Enbridge Long Range Forecasts (2006-2015), June 2006* and *Enbridge Long Range Forecasts (2007-2016), May 2007*. Enbridge also compared its long range forecasts with a forecast prepared by the NEB in its *Canada's Oil Sands Opportunities and Challenges to 2015: An Update, June 2006*. One final forecast, CAPP's *Crude Oil Forecast, Markets and Pipeline Expansions, June 2007*, was also entered into evidence.

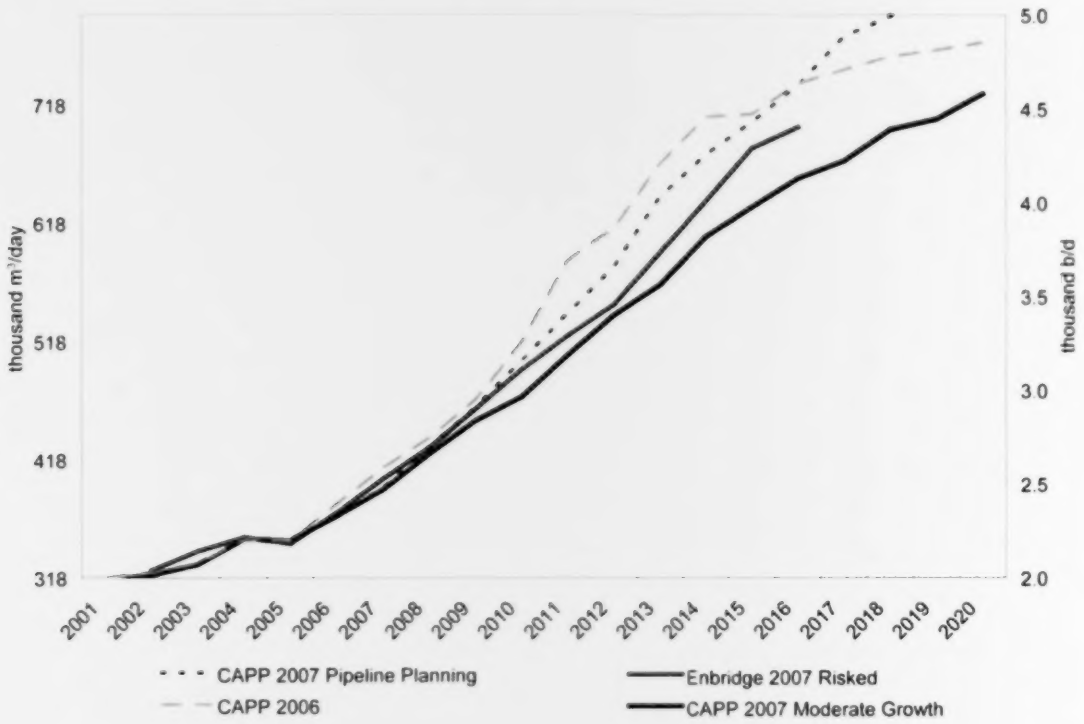
In all of the forecasts submitted, significant growth was expected in WCSB production over the next 10 to 15 years. By 2010, the forecasts indicated that there could be between approximately 90 480 m^3/d to 136 350 m^3/d (570,000 b/d to 860,000 b/d) of incremental crude oil production over estimated 2006 production levels. By 2015, incremental production was expected to grow between 235 490 m^3/d to 333 020 m^3/d (1,484,000 b/d to 2,098,000 b/d) over 2006 production levels. Figure 9-1 provides a comparison of the CAPP 2006 and 2007 oil supply forecasts and the Enbridge 2007 Risked oil supply forecast from Enbridge's *Long Range Forecast (2007-2016)*.

While the supply forecasts were uncontested by parties to the proceeding, discussion did ensue regarding the differences between several of the forecasts. The Alberta Federation of Labour (AFL) was particularly interested in the risk adjustments made to the supply forecasts and the effect of Alberta Clipper on the various oil supply forecasts. CAPP explained that the key difference between the various CAPP forecasts resulted from its risk adjustment process that involved adjusting the potential completion schedules for projects which were deemed to be more uncertain. Enbridge explained that it undertook a similar risk adjustment process and that the makeup of projects delayed was equally split between upgraded products and bitumen.

CAPP stated that future growth in WCSB oil supply is based mostly on increased oil sands production. Future growth in oil sands supply could be impacted by higher costs stemming from higher royalties, described in the New Royalty Framework announced by the Alberta

government on 25 October 2007. However, CAPP was of the opinion that Alberta Clipper would still be needed to handle oil sands projects that are currently being built and would be in place by mid-2010. In CAPP's view, the biggest and most immediate impact of the proposed New Royalty Framework was expected to be on conventional crude oil production. However, since conventional crude oil production would be the smallest component of future supply, the New Royalty Framework would not impact the overall need for the pipeline.

Figure 9 -1
Comparisons of Western Canada Crude Oil Supply Forecasts



9.2 Markets

Enbridge engaged Muse Stancil & Co. (Muse Stancil) to provide an assessment of the markets for and the benefits of Alberta Clipper. Muse Stancil concluded that the largest growth markets for Canadian crude oil which can be served by an expanded Enbridge pipeline system are the refining areas in the Midwest market, Mid-Continent, Ontario, and the U.S. Gulf Coast.

Muse Stancil noted that, by using existing pipeline infrastructure, Alberta Clipper could access almost every refinery in the Midwest market of PADD II. Refiners such as BP, ConocoPhillips and Marathon have announced expansion or conversion projects to their refineries in these markets.

Currently, refineries in the Mid-Continent are largely configured to process crude oils that are produced locally. Muse Stancil stated that, with the startup of the Enbridge Spearhead Pipeline in 2006, interest in the Mid-Continent market for Canadian crude oils was increasing.

Over the longer term, Muse Stancil proposed that the target markets for crude oil shippers on Alberta Clipper may also include the U.S. Gulf Coast and U.S. East Coast markets. Muse Stancil expected that improved pipeline access to the U.S. Gulf Coast for Canadian crude oils was highly likely and noted that the U.S. Gulf Coast is the largest demand centre for heavy sour crude oils in the world. In Muse Stancil's view, refineries that process light sweet crude oils would be interested in the Canadian sweet synthetics as long as the Canadian synthetic was price competitive with waterborne imports.

Muse Stancil noted that Ontario, which currently has about 20 percent of Canadian refining capacity, could also be a strong growth market for western Canadian crude oil supply. Muse Stancil believed that prospects for an increase in consumption in Ontario of western Canadian crude oil would be strong for three reasons: the potential construction of a new Ontario refinery[6]; the need to replace declining crude oil flows (mostly crude oils from offshore Atlantic Canada, the North Sea and Algeria) received via the Enbridge Line 9 pipeline from Montreal; and, expected increases of capacity at existing refineries.

CAPP's *Crude Oil Forecast, Markets and Pipeline Expansions Report, June 2007* supported Muse Stancil's assessment that PADD II and Ontario could be core markets for western Canadian crude oil and as well as raising the potential for expansions into new markets such as Quebec, eastern PADD I, southern and eastern PADD II, PADD III, California and Asia.

With respect to eastern Canadian markets, Muse Stancil noted that, if Enbridge's Line 9 were re-reversed from Sarnia to Montreal, this would provide approximately 40 000 m^3/d (250,000 b/d) of potential transportation capacity to service refiners in Montreal. However, Muse Stancil was of the view that it would be expensive to install a pipeline from Montreal to serve a refinery in Quebec City and that transporting western Canadian crude oil via tanker from Montreal to refineries in Atlantic Canada was not a practical option.

The existence and the adequacy of markets were not contested by intervenors.

9.3 Transportation Capacity

Muse Stancil assessed the expected distribution of western Canadian crude oil and utilization of Alberta Clipper from 2010 to 2020. Muse Stancil relied on the 2006 crude oil production forecast developed by CAPP and assumed that the following pipeline expansions and additions would occur:

- the addition of the TransCanada Keystone pipeline, with an initial capacity of 69 200 m^3/d (435,000 b/d), an in-service date for the full year of 2011, and an ultimate capacity of 96 800 m^3/d (590,000b/d);

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6 Shell Canada's Sarnia heavy oil refinery currently under study as announced by Shell Canada Limited on 23 November 2006.

- a new pipeline to the coast of British Columbia by 2014 of 63 600 m^3/d (400,00 b/d); and
- expansion of Kinder Morgan's TransMountain pipeline by 2009 of 6 400 m^3/d (40,000 b/d).

Even with the assumed increases in pipeline capacity, Muse Stancil determined that existing pipe capacity could not accommodate the anticipated growth in supply. Muse Stancil expected that by 2020, 67 000 m^3/d (420,000 b/d) of western Canadian crude oil would be shut-in without Alberta Clipper (Table 9-1).

Table 9-1
Estimated Shut-in Western Canada Crude Production

(units as noted)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
000 m^3/d	-	10	37	92	3	6	33	45	56	62	67
000 b/d	-	60	230	580	20	40	210	280	350	390	420

Alberta Clipper would expand the Enbridge Mainline system capacity by 71 500 m^3/d (450,000 b/d), and with the addition of pumping facilities, up to an ultimate capacity of 127 000 m^3/d (800,000 b/d). The ultimate capacity of Alberta Clipper would match the expansion capacity available on the downstream Southern Access pipeline from Superior to Chicago thus balancing the Enbridge system upstream and downstream of Superior. Enbridge noted that its Mainline system is a multi-line pipeline system and it provides flexibility to transport a variety of different commodities (40 types of crude oil as well as refined products on Line 1) to meet customer needs. Therefore it suggested that the Project should be viewed as an expansion to overall Mainline system capacity and not be viewed as a project solely for the purpose of transporting a particular crude oil commodity.

Enbridge indicated that, in conjunction with the reallocation of some of its existing pipelines to different delivery service, Alberta Clipper would contribute to an overall increase in both light and heavy crude oil transportation capacity. The following figures (Figure 9-2 and 9-3), demonstrate the anticipated throughput of light and heavy crude oil on the Enbridge Mainline system (shaded areas), including Alberta Clipper and other anticipated system changes resulting from the Southern Lights Project (which include the light sour crude oil pipeline (LSR Pipeline), Line 2 modifications to replace capacity reductions resulting from the Line 13 reversal for diluent transportation), expansions to Line 4 (under the Southern Access Upstream Expansion) and the Line 3 conversion to light crude oil service in 2011. The Southern Lights project would remove Line 13 from southbound crude oil service beginning in 2010 and would reverse it to transport diluent from Clearbrook to Edmonton (Line 13 Reversal). To offset the capacity reduction from the Line 13 Reversal, modifications would be made to increase the capacity of Line 2 between Edmonton and Superior (Line 2 Modifications) beginning in 2008. The LSR Pipeline would transport light sour crude oil southbound from Cromer and is expected to be in service by the end of 2008. Under the Southern Access Upstream Expansion[7], Line 4 would be

7 The Southern Access project is an expansion and extension of the Enbridge Mainline system, including pump station modifications in Alberta, Saskatchewan, and Manitoba, and new pipeline in Wisconsin and Illinois, to increase crude oil capacity to Midwest refineries and beyond. Stages 1A and 1B were approved by the NEB on 6 September 2006 and Stages 2A and 2B were approved by the NEB on 25 January 2007.

reconfigured to eliminate capacity bottlenecks and would increase heavy crude annually downstream of Hardisty beginning in 2008. Figure 9-2 demonstrates Enbridge's expectation that without Alberta Clipper, its ability to transport light crude oil would reach capacity by 2011. Similarly, Figure 9-3 demonstrates its ability to transport heavy crude oil would reach capacity by 2010.

Figure 9-2
Total Light Throughput and Capacity ex-Western Canada

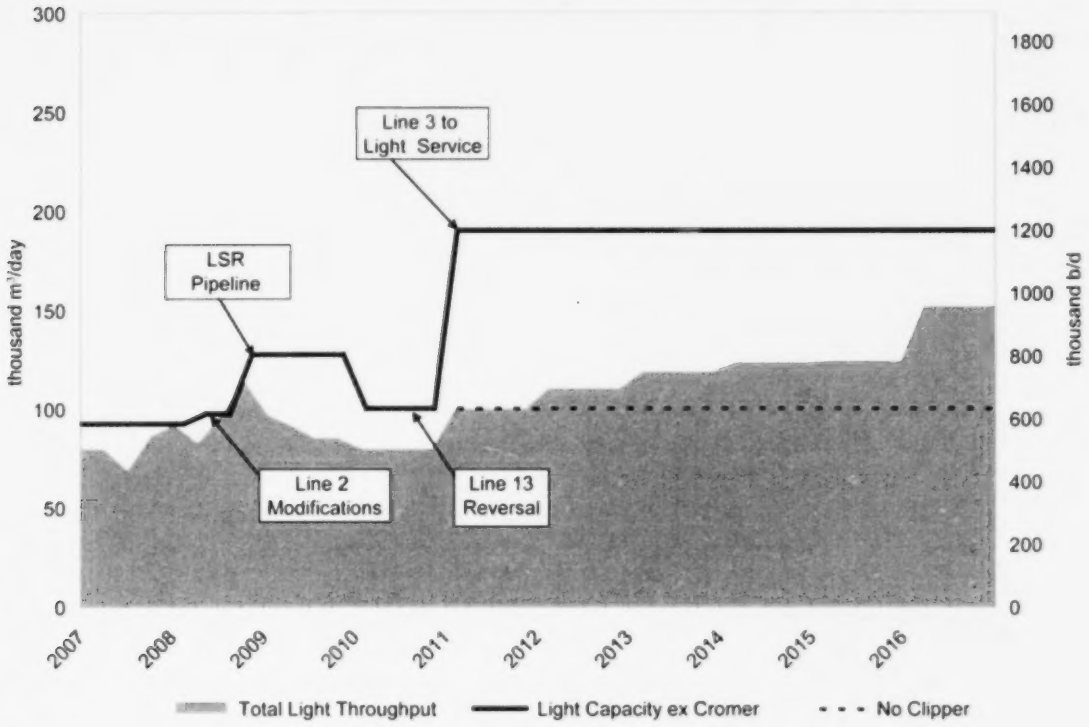
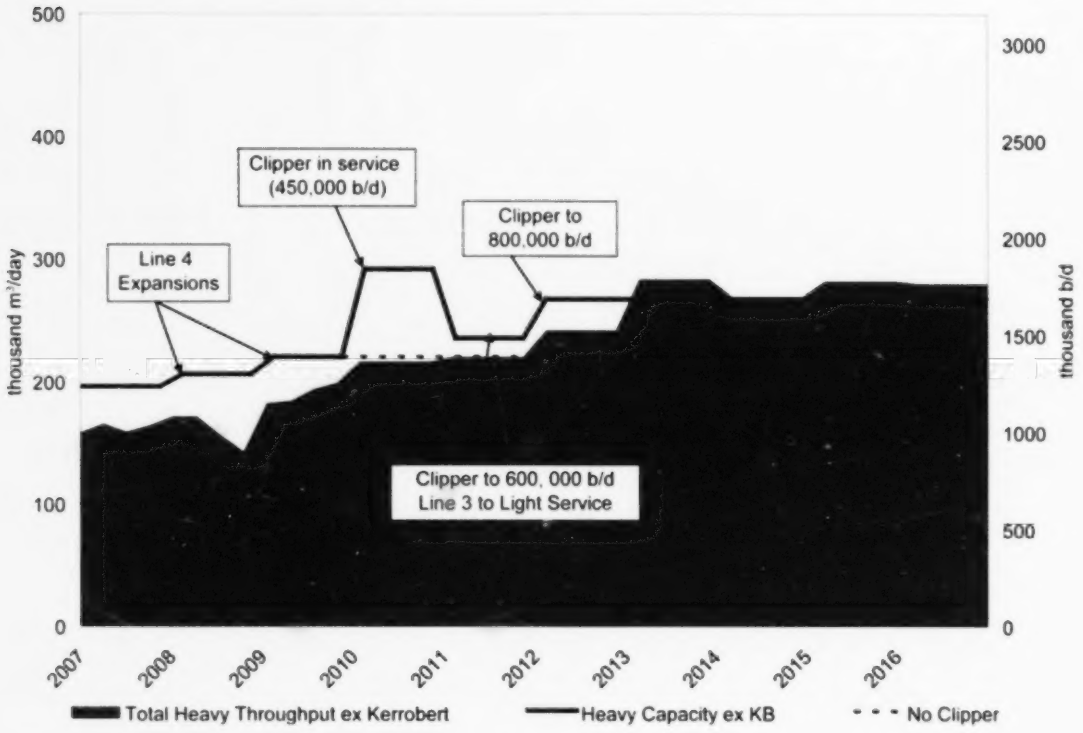


Figure 9-3
Total Heavy Throughput and Capacity ex-Western Canada



9.4 Ability to Finance

Enbridge expected the total capital cost of Alberta Clipper to be $2 billion excluding AFUDC. Enbridge would be the sole owner and operator of the pipeline in Canada. In 2007 Enbridge had a $300 million commercial paper program back-stopped by a syndicate of banks, and by the end of 2007, expected to complete arrangements for a stand-alone term bank credit facility of up to $1.5 billion with a syndicate of banks to fund the construction costs. Enbridge expected to refinance the Project in the public long term debt market after the completion of construction. Equity financing would be provided by periodic equity investments in Enbridge by Enbridge Inc., which would fund the contributions from internally generated cash-flows and capital market transactions.

Any financial uncertainty associated with changes in interest rates and bond yields during construction would impact AFUDC which would be capitalized and recovered with other capital. The Settlement with CAPP provides for interest costs (on the adjusted rate base) to be recovered from shippers. Enbridge expected no significant changes to the financial risk of Enbridge and Enbridge Inc. as a result of the Project.

Expectations about a project's return on capital may impact the ability to raise equity and debt financing. The Settlement provides for Enbridge to earn a capital penalty or bonus dependent on

whether actual controllable costs were beyond certain threshold levels set by a capital cost risk sharing mechanism (as described in Chapter 8). Enbridge used the results of a probabilistic modeling of capital costs, which indicated that there was an 80 percent probability that total capital costs would be between $1,588 and $2,689 million. From this information, parties to the Settlement assigned certain thresholds for the sharing of controllable capital costs. These thresholds were called the P10 and P90 values for controllable and non-controllable costs[8]. Based on the allocation of controllable and non-controllable costs in the Settlement, which assumed an ROE of 9 percent based on the NEB Formula, Enbridge submitted that the P10 total Project costs would provide a 13.64 percent effective ROE while the P90 total Project costs would provide an ROE of 9.64 percent.

Views of Parties

MPLA and SAPL expressed concern about the adequacy of financial reserves at the end of a pipeline's economic life. As noted in Chapter 5, Enbridge and MPLA and SAPL reached agreement on many issues. With respect to the issue of funding for future net costs of abandonment, both CAPP and Enbridge indicated a preference for an industry-wide solution and commented that the Settlement would need to be renegotiated if such funding were mandated.

9.5 Economic and Commercial Impacts

Enbridge submitted that the potential residual effects on employment and the economy arising from the construction and operation of Alberta Clipper include employment opportunities for local businesses and residents and the generation of revenue for municipal, provincial and federal governments. An economic effects analysis of the Project was undertaken by Decision Economics Consulting Group (DECG Analysis). The DECG Analysis included estimates of the direct and indirect impacts on major macro-economic measures such as gross domestic product, employment, employment income, and taxation revenue.

The DECG Analysis indicated that direct construction expenditures for Alberta Clipper would total $1.5 billion (in 2007 dollars), excluding provincial sales taxes. Of this amount, 98 percent would be spent in Canada on goods and services, with $32 million (2 percent) spent on direct imports. Approximately 95 percent of the direct expenditures would be spent in the three Prairie Provinces, creating ripple effects as these expenditures trigger indirect impacts across Canada. Including direct and indirect or ripple effects from subsequent purchases of other factors of production, the DECG Analysis estimated that the Project would increase Canadian output by an estimated $2.2 billion[9] and Canadian Gross Domestic Product by an estimated $812 million[10], with 70 to 74 percent in Saskatchewan and Alberta.

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8 The engineering consultants who undertook the risk analysis indicated in oral examination that they had not provided any advice on the probability of the controllable cost component. The Enbridge witness who spoke to the Settlement indicated he had no knowledge of conditions required to support assigning probabilities to controllable costs.

9 Output - measures the total value of the goods and services produced within the economy to meet the demands of the project.

10 Gross Domestic Product (GDP) - measure of the value of goods and services produced in the economy; as compared to output, it measures only the value added in the economy.

The DECG Analysis also stated that it was expected that the Project would increase Canadian employment by 11,827 person-years including direct and indirect impacts, with 70 percent of the increase occurring in Saskatchewan and Alberta. Labour income was projected to increase by $553 million, including direct and indirect effects.

The DECG Analysis projected that construction expenditures would cause an increase in federal tax revenue of $142 million directly and indirectly through corporate income tax, personal income tax and indirect taxes. In addition, provincial tax revenue would increase by $118 million, with more than half in Saskatchewan. Annual municipal property taxes payable by Enbridge were expected to rise by $6.3 million when operation of the pipeline commenced.

Views of Parties

AFL

AFL was concerned about the impacts of Alberta Clipper on future investment and the development of value-added processing and long-term job creation in Canada.

AFL argued that the Board's public interest determination must take into account the impact of the Project facilitating the shipment of unprocessed natural resources out of Canada. In its view, the export of bitumen to the U.S. would impact future investment and the development of value-added upgrading, refining, and secondary industry in Canada, as well as long-term jobs and opportunities in Canada. AFL was concerned that shipping unrefined crude to the U.S. would result in fewer long-term permanent jobs in Canadian refineries.

AFL claimed that there is no information on whether investments in Canadian value-added industries would be lost due to a pipeline exporting bitumen, nor on whether jobs would be created in the U.S. rather than Canada. AFL suggested that until an analysis on whether or not it is in the Canadian public interest to export bitumen has been performed, there cannot be a full and fair assessment of whether or not pipelines like Alberta Clipper are in the public interest.

AFL also argued that the evidence does not show whether the availability of capacity to the U.S. would encourage producers to ship unrefined crude to the U.S., and therefore hinder the development of the refining and upgrading industry in Canada. AFL suggested that before the NEB makes its decision, it should require Enbridge to estimate the impact of the Project on upgrading and refining employment in Canada and the U.S.

AFL was concerned about the current reliance on market forces and the perceived lack of a national plan or energy policy framework that might result in oil sands development proceeding in a manner that is not in the broader Canadian public interest. In its view, the approval and construction of pipelines was premature as policy aimed at optimizing the multiple objectives of economic growth, environmental sustainability and the development of the energy section was first required to ensure that opportunities for value-added processing in Canada would not be lost or undermined.

AFL requested that the application be either rejected because there is not enough evidence, or put on hold; first, to study the impact of Alberta Clipper on Canadian upgrading and refining

industries; and second, to provide time for policy-makers to develop a vision and policy for Canada that would help guide the assessment of the Project.

CEP

CEP expressed concerns that, if approved, the Project would adversely affect the economic development of the Canadian refining industry and undermine Canadian energy security.

CEP suggested that the extent to which bitumen is upgraded in Canada has an impact on economic development and therefore the public interest. In its view, the broad economic implications of exporting bitumen to the U.S. were central to determining whether or not the Project would be in the Canadian public interest.

CEP argued that approval of Alberta Clipper would cause the upgrading and refining of oil sands products to occur to an increasing degree in the U.S., and therefore a substantial share of economic benefits would take place in the U.S. rather than in Canada. The CEP suggested that, if the Project was not approved, oil companies wishing to refine bitumen would more likely make investment decisions to do so in Canada.

Enbridge's evidence was insufficient in CEP's view, since it did not analyze the potential impact of the Project on the Canadian upgrading industry. CEP therefore requested that the Board either reject the application, or require Enbridge to conduct a thorough analysis on the potential impact of Alberta Clipper on present plans to expand Canadian upgrading capacity for oil sands resources.

CEP expressed concern that there is no direct Canadian oil pipeline route from the oil sands to eastern Canada and that U.S. pipeline infrastructure is not sufficient to carry western Canadian supplies to eastern Canada. It argued that the market had failed to establish adequate pipeline infrastructure to serve eastern Canadian markets. Therefore, approval of Alberta Clipper would mean that eastern markets would remain largely dependent on offshore supplies.

CEP also indicated that adequate pipeline capacity was central to decisions to construct a new refinery. CEP discussed the plans by Shell to construct a new refinery in Sarnia and argued that, since no evidence was introduced to demonstrate that the Project would increase downstream pipeline capacity to Ontario, there was no basis for the Board to conclude that the proposed Shell refinery in Sarnia would have sufficient access to pipeline capacity and oil supply from the WCSB.

CEP suggested that since Enbridge has demonstrated a preference for U.S. markets over Canadian markets, the Board has two options: either refuse to approve the Project; or mandate Enbridge to expand its Enbridge Energy Partners, L.P.'s Lakehead (Lakehead) system in the U.S. to increase pipeline transportation capacity to eastern Canada.

CAPP

CAPP argued that without additional pipeline capacity oil supply would become trapped and that would not be in the public interest. CAPP noted that producers supported the additional pipeline

capacity and that the Settlement reflects the importance to industry of a timely expansion of capacity.

CAPP argued that market-based energy policies have provided growth, jobs for Canadians and an oil and gas industry that is national in scope. With respect to concerns expressed regarding a lack of a plan for the future development of the industry, CAPP suggested that the plan was for all industry participants to keep doing what works best – responding to market signals. CAPP submitted that the mix of upgraders, refineries and pipelines is the response of the market at work. In this connection, CAPP indicated that there is a massive list of upgraders and refineries in Canada that are in various stages of development. In its view, these proposals, including Shell's proposed expansion to its Sarnia refinery, would not occur without growing oil supply and pipeline expansions to move supply to the east.

Enbridge

Enbridge disagreed that approval of the Project would have negative impacts on the upgrading and refining industry. It indicated that market participants have confidence that the market is working to meet long-term Canadian requirements and that there is no evidence of opposition from the upgrading and refining industry. Enbridge contended that energy prices provide appropriate market signals for energy resource development and are therefore an important element of an efficient energy market. In its view, any restriction on the export of bitumen or a denial of the Project would interfere in the normal operation of the market.

Enbridge indicated that Alberta Clipper would expand the capacity of the Mainline system allowing for the transportation of increased volumes of many different commodities, including refined products. If the market brought forth more upgrading and refining in Alberta, the Mainline system could be adapted to carry those products to markets. In its view an expansion of the Mainline system would serve to increase the capacity to transport bitumen and synthetic crude oils to Ontario and eastern Canadian markets, provided there was sufficient demand.

Enbridge argued that AFL's concern that bitumen would not be available for domestic upgrading was unfounded. Enbridge suggested that Alberta Clipper would facilitate the upgrading of bitumen in Alberta. It claimed that the Project would provide the capacity necessary to transport growing volumes of synthetic oil supply from domestic upgrading projects that are currently under construction. Enbridge also indicated that there is not enough merchant upgrading available to accommodate all the projected growth in bitumen supply from standalone merchant upgraders and that most of that supply would have to find markets in Ontario and the U.S.

Enbridge questioned the value of conducting a full economic analysis of the impacts of the Project on the upgrading and refining industry. It indicated that the choice to upgrade or export bitumen is a question that many individual producers and market participants address and reach different conclusions based on their particular assumptions on costs and prices. Given the different conclusions of individual market participants, it would be difficult to conduct a meaningful analysis on the impact of denying Alberta Clipper. Given the questionable value of such a study, Enbridge argued that it was not an applicant's responsibility and that AFL could have, but did not provide a study on that matter.

With respect to CEP's request to study the potential impact of the Project on plans to expand Canadian upgrading capacity, Enbridge stated that Alberta Clipper would have no impact on the viability of any existing or planned domestic upgrading project. Rather, the viability of an upgrading project is dependent on costs, availability of labour and materials, commodity prices taxes and royalties. However, Enbridge suggested that a new refinery in Ontario would not likely be built without increased crude oil transportation capacity out of western Canada, as existing pipelines systems are generally full. Enbridge also indicated that, should eastern Canadian refineries require additional crude oil supplies, its system could be made to accommodate that market need.

Enbridge submitted that Alberta Clipper was a response to industry demand for increased capacity to transport crude oil from western Canada to markets. With respect to CEP's request to require the extension of the Lakehead system, Enbridge pointed out that the Board does not have jurisdiction over the Lakehead system in the U.S. Enbridge argued that it does not have a preference for markets in the U.S. and that it is in the business of building pipelines to meet the demands of its shippers and is prepared to meet the demands of shippers for further expansions of capacity to eastern Canada as those needs materialize. Enbridge further indicated that there are other proposals under consideration that would serve to increase capacity to serve Ontario markets.

Views of the Board

Enbridge's evidence was that western Canadian crude oil production has grown significantly and will continue to grow due to the development of the oil sands. Similarly, CAPP's testimony was that crude oil production from oil sands projects currently being built, which would be in place by mid-2010, would increase supply and require pipeline capacity additions to transport the crude to markets. Although some intervenors asked questions aimed at clarifying how the crude oil production forecasts were derived, none challenged them. The Board considered the variables and risks taken into account in the crude oil forecasts and concludes that they are reasonable. The Board therefore accepts that crude oil supply is likely to increase above current levels in years to come.

Evidence of markets for the projected increase in crude oil supply out of the WCSB was provided in the Muse Stancil market assessment. It supplied details of the refining capacity in major refining markets, including Ontario and the U.S. Midwest, which would be accessible via Alberta Clipper. None of the participants in the hearing contested the adequacy of markets. The Board finds the assessment of oil demand and expected markets to be reasonable and is satisfied that there will be sufficient markets to accept crude oil that could be delivered on Alberta Clipper.

In its deliberations, the Board also considered whether there is a need for additional oil pipeline transportation capacity out of the WCSB. The Muse Stancil market assessment demonstrated to the Board's satisfaction

that significant volumes of western Canadian crude oil would be shut-in without Alberta Clipper. The Board therefore finds that the evidence before it regarding oil supply and demand from existing and new markets, combined with reasonable forecasts of other increases in pipeline capacity was sufficient to show a need for additional pipeline transportation capacity out of the WCSB. In the Board's view, in order to foster the proper functioning of markets, adequate transportation capacity is required to connect supply to markets.

In final argument, AFL and CEP expressed concern that approval of the Project could cause a lack of domestic bitumen supply that might hinder the continued development of the Canadian upgrading and refining industry, and by extension, hinder job creation. AFL and CEP also both suggested that more study was required to determine the broad economic impacts of the Project. AFL stated that there was an absence of a national plan to develop the oil sands. It argued that reliance on market forces might lead to the loss or undermining of opportunities for value added domestic processing. It suggested that the Board should either deny or postpone approval until policy makers could consider the matter further. For its part, CEP expressed the view that approving the Project without requiring Enbridge to increase transportation capacity to eastern Canada, would prejudice eastern Canadian security of supply. It asked the Board to either deny the Project or mandate Enbridge to expand its Lakehead system in the U.S.

The Board finds the conclusions drawn by AFL and CEP about the consequences of approving the Project unconvincing for several reasons.

When considering the overall public interest, the Board strives to ensure that Canadians benefit from efficient energy infrastructure and markets. In this case, the Board is of the view that properly functioning markets will generally produce outcomes in the public interest. With this in mind, the Board finds that it would not be in the public interest to deny the Project in order to make feedstock available to potential domestic upgrading and refinery projects that may or may not be realized; the evidence does not support the suggestion that the Canadian refining industry would grow if the Project were denied. The Board also finds support for its decision in the fact that no intervenor or member of the domestic upgrading and refining industry expressed concern about the possibility of lack of access to feedstock or other conditions of access. Furthermore, the evidence before the Board was that the proposed Project would have the ability to transport a range of products, including refined products, thus attenuating the likelihood that continued development of domestic refineries would be hampered. The evidence also showed that should additional refined product be produced, these products could be transported to markets. Moreover, the Board recognizes that projected supply growth would likely still exceed pipeline takeaway capacity even

as expanded by the Project, suggesting that Canadian requirements would continue to be met. Finally, the Board is mindful that Enbridge's evidence anticipates considerable positive impacts on employment and the economy as a result of the Project, including increased Canadian employment of 11,827 person years and a $2.2 billion increase in Canadian output.

The Board has considered the possible outcomes that approval of the Project might have and which AFL and CEP warn against. In the circumstances of this case, the Board finds no compelling evidence of market failure which warrants granting the relief requested by these intervenors, namely denying the Project, postponing its consideration pending further study or requiring Enbridge to expand the Lakehead system in the U.S. The Board notes that this last request is, in any event, outside of the Board's jurisdiction.

The Board also notes that no parties contested Enbridge's proposed financing or its ability to recover the capital, operating expenses or financing costs of the applied-for facilities. The Board finds that these arrangements are reasonable. As noted in the previous chapter, the Board finds that the provision of probability based evidence was useful but that there were certain shortcomings. Despite the risk modeling of the total Project costs which produced the P10 and P90 total cost estimates, there was no evidence to support the use of P10 and P90 terminology for the controllable costs. Here, the implication is to the effective ROE which is dependent not just on total costs but also on the controllable portion of total costs. The evidence varied total costs but kept the controllable portion in the same proportion for all of the examples used to estimate ROE and toll impact. The Board finds the evidence does not support the suggestion that there would be an 80 percent probability that the ROE will be between 9.64 and 13.64 percent. Nevertheless, the Board is satisfied that the parties engaged in financing the Project should be able to properly account for risk-based information and Enbridge has provided assurances of available funds. The Board has relied on the estimate of expected ROE and a single point cost estimate to conclude that the Project can be financed.

With respect to the issue of adequacy of financial reserves for end-of-life abandonment costs, the NEB Act requires that an application be submitted if and when facilities are to be abandoned. Further the Board has committed to address the issue of abandonment funding through its recently instituted Land Matters Consultation Initiative (LMCI).[11] In light of the fact that Alberta Clipper will be rolled into the Mainline and that it is initially expected to have an economic life of 30 years, the Board determines that handling of abandonment funding can be deferred until the conclusion of the LMCI work. The Board reminds Enbridge of its

11 See Board Letter 3 October 2007 outlining five issues areas to be addressed.

responsibility to be financially prepared for the eventual end of the economic life of its facilities.

The Board finds that the submissions provided by the Applicant regarding the assessment of crude oil supply, markets and transportation capacity are reasonable. The Project is supported by industry and can be financed. The Board accordingly concludes that the Project would be economically feasible and that the Alberta Clipper facilities would be likely to be used and useful.

Chapter 10

Conclusion on Public Convenience and Necessity

Enbridge made an application for the construction and operation of facilities pursuant to Part III of the NEB Act and a tolls application pursuant to Part IV of the Act.

In the present matter, the Board has carefully considered the evidence and submissions made by participants to the OH-4-2007 proceeding and has made findings on individual matters which fall within the ambit of section 52 in the preceding chapters. The Board has also considered the tolls application pursuant to Part IV of the NEB Act.

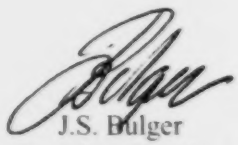
The Board is satisfied from the evidence that the Alberta Clipper facilities are, and will be, required by the present and future public convenience and necessity and therefore finds that approval of Alberta Clipper is in the public interest. The Board also finds that the toll Settlement is acceptable in light of the requirements of Part IV of the NEB Act and the Guidelines.

Chapter 11

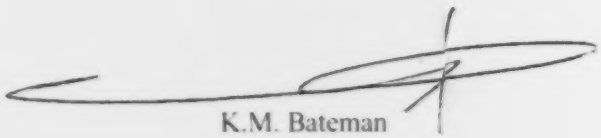
Disposition

The foregoing constitutes our Reasons for Decision in respect of the application considered by the Board in the OH-4-2007 proceeding.

Having made its determination under the CEA Act, the Board approves Enbridge's application pursuant to section 52 of the Act and will recommend to the Governor in Council that a Certificate be issued, subject to the Certificate conditions set out in Appendix III.



J.S. Bulger
Presiding Member



K.M. Bateman
Member

S.J. Crowfoot
Member

Calgary, Alberta
February 2008

Appendix I

List of Issues

1. The need for the proposed facilities.

2. The economic feasibility of the proposed facilities.

3. The potential commercial impacts of the proposed project.

4. The appropriateness of the proposed tolling methodology and the proposed method of financing the proposed project.

5. The potential environmental and socio-economic effects of the proposed new, modified and converted facilities, including those factors outlined in subsection 16(1) of the *Canadian Environmental Assessment Act*.

6. The appropriateness of the general route of the pipeline, land requirements, and impacts upon land use.

7. The suitability of the design, construction and operation of the proposed facilities, including but not limited to safety and integrity.

8. The impacts of the Project on Aboriginal People.

9. The terms and conditions to be included in any approval the Board may issue.

Appendix II

AIV Letter to Enbridge

National Energy Board

Office national de l'énergie

File OF-Fac-Oil-E101-2007-03 01
30 October 2007

Ms. Jennifer H. Strain
Enbridge Pipelines Inc.
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Calgary, AB T2P 3L8
Facsimile 403-231-7380

Mr. D. G. Davies
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Suite 3300,
421 – 7th Avenue SW
Calgary, AB T2P 4K9
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Dear Madam and Sir:

Enbridge Pipelines Inc. (Enbridge)
Alberta Clipper Expansion Project (the Alberta Clipper Project)
Hearing Order OH-4-2007
Enbridge's Proposed Alternative Integrity Validation Plan

The National Energy Board has examined Enbridge's responses to NEB information requests No. 2.1 a) and b) filed on 19 October 2007 (copies of the relevant NEB requests and cover letter are attached as Appendices 1, 2 and 3), regarding the proposed use of alternative integrity validation (AIV) as an alternative to hydrostatic pressure testing for a portion of the Alberta Clipper Project. After reviewing the recent filing of Enbridge's AIV Plan, the Board is of the view that its requirements have not been fulfilled in their entirety.

Through NEB information requests 1 and 2, the Board expressed concern over the absence of documentation provided on AIV. In its information requests, as well as in its cover letter dated 26 September 2007, the Board set out precise expectations on the extent of information required and directed Enbridge to file sufficient details with its AIV Plan in order to complete the record of the OH-4-2007 proceedings in advance of the oral hearing scheduled for 5 November 2007.

Enbridge's AIV Plan stated that landowner consultation regarding the use of an AIV process had not yet taken place. The Board expects the landowners to be consulted in the area where AIV is proposed.

...2

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The Board also notes that the proposed AIV of 53 km on a pipeline intended for crude oil service at 80 percent of the specified minimum yield strength (SMYS) contrasts with previous AIV field trials, which typically involved short pipeline sections in gas service subjected to low pipe stresses with a conservative design safety factor. Further, Enbridge has not elaborated on its rationale for AIV implementation or on its schedule for all phases of the process, from the manufacture of pipeline components through to the commencement of operation.

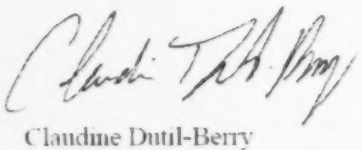
The Board expects an AIV process to assure at the very least the same level of pipeline safety and reliability as a pressure test and to be supported by a record of the company's previous pressure testing success rate prior to commissioning. The AIV process must be implemented as a fully documented quality management system, essential parts of which are quality assurance and quality control programs. Further, the AIV process should be fully integrated into the project management process. The Board requires an organizational chart describing Enbridge's and its contractors' responsibilities and clear lines of duty, in order to define the extent of oversight by experienced professionals that would be allocated to the AIV trial. As well, a change management process should be integrated in the AIV to account for modifications necessitated during its field implementation. A thorough failure mode assessment should be conducted for each stage of the project in order to ensure that critical activities are identified and that appropriate criteria, control measures or validation processes are developed. Moreover, the Board has been provided with no assurance as to the minimum sizes of injurious pipe features effectively detectable by the method(s) contemplated to verify leak tightness.

In light of these deficiencies, the Board is unable to pursue its assessment of Enbridge's proposed AIV method and will not further consider the AIV option in the context of the OH-4-2007 proceeding. Should the Alberta Clipper Project be approved, Enbridge would be required to hydrostatically pressure test the pipeline in accordance with the Canadian Standards Association Z662 (CSA Z662), *Oil and Gas Pipeline Systems*, 2007.

The Board reiterates its support towards the development and implementation of efficient new technologies and processes, which can include AIV trials. When such methods are not addressed in CSA Z662, the onus is nonetheless on the applicant to proactively and comprehensively demonstrate that pipeline integrity and public safety would not be compromised by the use of unconventional and unproven methods. Should an AIV method be envisioned in the future, including for the Alberta Clipper Project, the Board expects Enbridge to file a complete application in a timely fashion, for all parties to share an understanding of the scope of planned activities and their impact on the public interest.

Should you have any questions, please contact either Mr. Denis Saumure, Legal Counsel, at 403-292-6495 or Ms. Julie Fisk, Legal Counsel, at 403-299-2716.

Yours truly,



Claudine Dutil-Berry
Secretary of the Board

Attachments

c.c. All parties to OH-4-2007

Appendix III

Certificate Conditions

For the purposes of all of the conditions, "commencement of construction" includes the clearing of vegetation, ground-breaking and other forms of RoW preparation that may have an effect on the environment, but does not include activities associated with normal surveying operations.

General

1. Enbridge Pipelines Inc. (Enbridge) shall comply with all of the conditions contained in this Certificate unless the Board otherwise directs.

2. Enbridge shall cause the approved Project to be designed, located, constructed, installed, and operated in accordance with the specifications, standards and other information referred to in its application or as otherwise agreed to during questioning in the OH-4-2007 proceeding or in its related submissions.

3. Enbridge shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations and procedures for the protection of the environment included in or referred to in its application or as otherwise agreed to during questioning in the OH-4-2007 proceeding or in its related submissions.

Commitments

4. Enbridge shall:

   a) file with the Board and post on its Company website, at least 60 days before the planned start of construction, a table listing all commitments made by Enbridge during the OH-4-2007 proceeding in relation to Alberta Clipper, conditions imposed by the NEB, and the deadlines associated with each; and

   b) update the status of the commitments in a) on its website at least on a quarterly basis, advising the Board accordingly.

Prior to the Commencement of Construction

Construction Schedule

5. Enbridge shall file with the Board, at least 60 days prior to commencement of construction, a detailed construction schedule identifying major construction activities and shall notify the Board of any modifications to the schedule as they occur.

Manuals

6. Enbridge shall file with the Board the following programs and manuals within the time specified.

a) Comprehensive health and safety plan - 60 days prior to construction; and

b) Field pressure testing program - 14 days prior to pressure test.

Landowner Complaint Tracking

7. Enbridge shall, for audit purposes, create and maintain records to chronologically track landowner complaints related to Alberta Clipper. The landowner complaint records shall include:

a) the date the complaint was received;

b) how the complaint was received; i.e. telephone, mail, email, etc;

c) subsequent dates of all telephone calls, correspondence, site monitoring/inspections, follow up reports and other related documentation;

d) updated contact information for all parties involved in the complaint;

e) detailed description of complaint;

f) date of resolution of complaint; and

g) if no resolution, further actions to be taken (if any).

Environmental Protection Plan

8. Enbridge shall file with the Board for approval, at least 60 days prior to commencement of construction, an updated project-specific Environmental Protection Plan (EPP). The EPP shall describe all environmental protection procedures, and mitigation and monitoring commitments, as set out in the application or as otherwise agreed to during questioning, in its related submissions or through consultations with other government agencies. Construction shall not commence until Enbridge has received approval of its EPP from the Board.

Archaeology and Paleontology

9. Enbridge shall:

a) file with the Board, at least 60 days prior to the commencement of construction, the results of the archaeological and palaeontological investigations; and

b) include the recommendations resulting from the archaeological and palaeontological investigations, including those for the Thornhill Burial Mounds, in the EPP.

Thornhill Burial Mounds

10. Enbridge shall file with the Board, and make available on its website for informational purposes, at least 60 days prior to construction in the area of the Thornhill Burial Mounds, a report on the consultations it carried out with Aboriginal groups concerning the Thornhill Burial Mounds that:

a) summarizes which Aboriginal groups were consulted with and their concerns; and

b) states how Enbridge proposes to respond to those concerns.

11. Enbridge shall, on or about 30 days prior to construction, file with the Board and the consulted Aboriginal people an update on its consultation with Aboriginal people, including but not limited to:

a) consultation with Battleford Agency Tribal Chiefs Inc. and the Métis Nation – Saskatchewan;

b) concerns raised by Aboriginal people; and

c) for approval, a summary indicating how Enbridge will address any concerns raised during these consultations.

During Construction

Construction Progress Reports

12. Enbridge shall file with the Board, on a monthly basis until construction is completed, in a form satisfactory to the Board, construction progress reports. The reports shall include information on the activities carried out during the reporting period, any environmental and safety issues and non-compliances, and the measures undertaken for the resolution of each issue and non-compliance.

Welding and Testing Procedures

13. Enbridge shall develop the joining programs for the Project and file them with the Board at least 60 days prior to the commencement of any welding activities to which the programs relate. The joining programs shall include:

a) the requirements for the qualification of welders;

b) the requirements for the qualification and duties of welding inspectors;

c) the welding techniques and processes Enbridge will be using;

d) the welding procedure specifications and procedure qualification records;

e) the welding procedure specifications for welding on in-service pipelines (where applicable);

f) the non-destructive examination (NDE) procedures, and supporting procedure qualification records, which detail the ultrasonic and/or radiographic techniques and processes Enbridge will be using, for each welding technique;

g) the defect acceptance criteria for each type of weld (i.e. production, tie-in and repair);

h) an explanation of how the defect acceptance criteria were determined; and

i) any additional information which supports the joining program.

Archaeological and Heritage Resources

14. Enbridge shall, in the event that previously unidentified archaeological or heritage resources are discovered:

    a) immediately cease work at the location of the discovery and notify responsible provincial authorities; and

    b) resume work only after approval is granted by the responsible provincial authority.

Post Construction

Hydrotest and Leave to Open

15. Enbridge shall hydrostatically pressure test the Alberta Clipper pipeline in compliance with the Canadian Standards Association Z662, *Oil and Gas Pipeline Systems, 2007* requirements and shall submit the results to the Board as part of its application for Leave to Open.

Thornhill Burial Mounds

16. If concerns arise through the consultations undertaken pursuant to Condition 10 concerning the Thornhill Burial Mounds then, within 60 days after construction in the area of the Thornhill Burial Mounds, Enbridge shall file with the Board, and make available on its website for informational purposes, a report on the consultations it carried out with Aboriginal groups that:

    a) identifies any concerns arising from construction activities that have taken place within the area of the Thornhill Burial Mounds; and

    b) identifies how Enbridge is responding, or has responded, to those concerns.

Corporate Confirmation

17. Within 30 days of the date that the approved Project is placed in service, Enbridge shall file with the Board a confirmation, by an officer of the company, that the approved Project was completed and constructed in compliance with all applicable conditions of this Certificate. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is an officer of the company.

Depth of Cover Monitoring Program

18. Enbridge shall:

    a) file with the Board for approval within 90 days of the commencement of operation of Alberta Clipper, a Pipeline Depth Monitoring Program (PDMP) which would include:

i) the frequency of monitoring;

ii) the methodology to undertake monitoring;

iii) mitigation measures if locations shallower than 0.6 m of cover are discovered during monitoring, including the maximum time interval from the time Enbridge is made aware of the occurrence of low cover to the implementation of remediation efforts; and

iv) means by which findings of the PDMP will be communicated to affected landowners and how their comments will be included in the development of mitigation strategies;

b) integrate the PDMP into its Pipeline Integrity Management Program and submit a description of how this has been accomplished; and

c) provide a description of the consultation with landowners along the Alberta Clipper route that was undertaken in the development of the PDMP.

Post-construction Environmental Monitoring

19. On or before the 31 of January of each of the first five (5) years following the commencement of the operation of Alberta Clipper, Enbridge shall file with the Board, and make available on its website for informational purposes, a post-construction environmental report that:

a) identifies on a map or diagram the location of any environmental issues which arose during construction;

b) discusses the effectiveness of the mitigation applied during construction and the methodology used to assess the effectiveness of mitigation;

c) identifies the current status of the issues identified (including those raised by landowners), and whether those issues are resolved or unresolved; and

d) provides proposed measures and timelines Enbridge shall implement to address any unresolved concerns.

The report shall address, but not be limited to, issues pertaining to soil productivity on cultivated lands, weeds, reclamation of native prairie, watercourse crossings and plant species of special concern.

Emergency Response Exercise

20. Within six (6) months after commencement of operation of the Project:

a) Enbridge shall conduct an emergency response exercise at its South Saskatchewan River crossing and relevant downstream control points with the objectives of testing:

i) emergency response procedures, including response times;

ii) training of company personnel;

iii) communications systems;

iv) response equipment;

v) safety procedures; and

vi) effectiveness of its liaison and continuing education programs.

b) Enbridge shall notify the Board, at least thirty (30) days prior to the date of the emergency response exercise, of the following:

i) the date(s) and location(s) of the exercise;

ii) the type of exercise;

iii) the exercise scenario;

iv) the proposed participants in the exercise;

v) the objectives of the exercise; and

vi) the evaluation criteria.

c) Enbridge shall file with the Board, within sixty (60) days after the emergency response exercise outlined in a), a final report on the exercise including:

i) the results of the exercise;

ii) how the exercise achieved its objectives;

iii) areas for improvement; and

iv) steps to be taken to correct deficiencies.

Expiration of Certificate

21. Unless the Board otherwise directs prior to 31 December 2009, this certificate shall expire on 31 December 2009 unless the construction in respect of the Project has commenced by that date.

Appendix IV

Schedule A

SCHEDULE A

Enbridge Pipelines Inc. Application, dated 30 May 2007, pursuant to section 52 of the *National Energy Board Act*

Alberta Clipper Expansion Project
File OF-Fac-Oil-E101-2007-03 01

Pipeline Specifications

Construction Type	New					
Location	From Enbridge's Hardisty Terminal (Alberta) at KP 175.4 in SE 30-42-9 W4M to United States border near Gretna (Manitoba) at KP 1245.2 in SE 4-1-1 WPM					
Approximate Length	414.2 km	199.2 km	149.5 km	280.1 km	29.5 km	1.5 km
Minimum Wall Thickness	9.12 mm	9.53 mm	9.92 mm	10.31 mm	10.72 mm	14.59 - 17.15 mm
Maximum Operating Pressure	7 710 kPa	8 060 kPa	8 390 kPa	8 720 kPa	9 060 kPa	7 718 - 9 060 kPa
Outside Diameter	914 mm (NPS 36)					
Steel Grade	Gr. 483 MPa (X70)					
Pipe Material Standard	CSA Z245.1 or API 5L					
External Coating Type	Fusion-bond epoxy					
Product	Crude oil					

Facilities Specifications

Location of Pump Station for Alberta Clipper pipeline			Pumping Facilities	Scraper Trap Facilities with Line and Barrel Pipe MOP
			Pump Units Description with Discharge Pipe MOP [1]	
Alberta	**Hardisty** SE 30-42-9 W4M	KP 175.4	Four new units and one VFD [2] 5,500 HP per pump [3] MOP = 9 930 kPa	New MOP = 9 060 kPa
Saskatchewan	**Kerrobert** SE 34-33-22 W3M	KP 351.3	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	New MOP = 8 720 kPa
	Milden SE 6-29-10 W3M	KP 475.0	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	-
	Craik SE 10-23-29 W2M - NE 3-23-29 W2M	KP 590.7	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	-
	Rowatt SW 33-16-19 W2M - NW 28-16-19 W2M	KP R38.9	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	New MOP = 7 710 kPa
	Glenavon SW 22-14-9 W2M	KP 812.1	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	-
Manitoba	**Cromer** NE 17-9-28 WPM - SE 20-9-28 WPM	KP 958.8	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	New MOP = 8 390 kPa
	Glenboro SE 3-7-14 WPM	KP 1103.3	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	-
	Gretna SE 8-1-1 WPM	KP 1242.4	Two new units and one VFD 5,500 HP per pump MOP = 9 930 kPa	New MOP = 8 720 kPa

[1] MOP: maximum operating pressure
[2] VFD: variable frequency drive
[3] For conversion to metric units: 1,000 HP (horsepower) are equivalent to 746 kilowatts.

Construction Type	New
Facility Type	Instrumentation and Controls Equipment and Piping
Location	Enbridge's nine new pumping stations for the Alberta Clipper pipeline, as listed above (in Alberta, Saskatchewan and Manitoba)
Description	• Ultrasonic flow meter at every third station • Pressure control valves on discharge side of pumps • Emergency shutdown systems
Product	Crude oil

Construction Type	New
Facility Type	Electrical Services Buildings
Location	Enbridge's nine new pumping stations for the Alberta Clipper pipeline, as listed above (in Alberta, Saskatchewan and Manitoba)
Description	• Prefabricated modular units, approximately 10 m x 15 m • Medium voltage equipment for pump motors, control systems and uninterruptible power supply

Construction Type	New
Facility Type	Tanks and Associated Terminalling Facilities
Location	Enbridge's Hardisty Terminal (Alberta) at KP 175.4 in E1/2 19-42-9 W4M and SE 30-42-9 W4M
Description	• Six aboveground single-walled oil storage tanks: - working capacity of 31 800 m^3 (200,000 barrels) - nominal capacity of 39 750 m^3 (250,000 barrels) - height of 18.3 m - external floating roofs • Electrical, metering and quality assurance buildings • Firewater and foam building • Booster pumps to feed into mainline pumps
Product	Crude oil